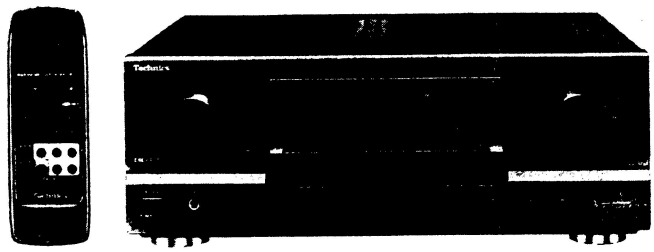
ORDER NO. AD9406152C8

Service Manual

AV Control Stereo Receiver

Receiver

SA-GX670



Colour

(K) ... Black Type

Areas

Suffix for Model No.	Area	Colour
(E)	Europe.	(K)
(EB)	Great Britain.	
(EG)	Germany and Italy.	
(G)	Asia, Latin America, Middle Near East and Africa.	
(GN)	Oceania.	

SPECIFICATIONS (DIN 45 500)

■ AMPLIFIER SECTION

Power output (at 240 V)
DIN 1 kHz (T.H.D. 1%)
[For (E, EB, EG) areas.] 2×100 W (4 Ω)
[For (G, GN) areas.] 2×110 W (8 Ω)
20 Hz–20 kHz continuous power output both channels driven
[For (E, EB, EG) areas.] 2×65 W (8 Ω)
[For (G, GN) areas.] 2×90 W (8 Ω)
Total harmonic distortion
rated power at 20 Hz–20 kHz 0.05% (8 Ω)
half power at 1 kHz 0.03% (8 Ω)
Power output at the Dolby Pro Logic operation
DIN 1 kHz (T.H.D. 1%)
Front [For (E, EB, EG) areas.] 2×60 W (4 Ω)
[For (G, GN) areas.] 2×60 W (8 Ω)
Center [For (E, EB, EG) areas.] 60 W (4 Ω)
[For (G, GN) areas.] 60 W (8 Ω)
Rear [For (E, EB, EG) areas.] 30 W (4 Ω)
[For (G, GN) areas.] 60 W (8 Ω)
Intermodulation distortion
rated power at 60 Hz: 7 kHz=4:1, SMPTE 0.5% (8 Ω)
Power bandwidth
both channels driven, −3 dB 10 Hz–40 kHz (8 Ω)
Damping factor 40 (8 Ω)
Input sensitivity and impedance
PHONO 3 mV/47 kΩ
CD, VCR 1, VCR 2, TAPE/DCC 200 mV/22 kΩ
S/N at rated power (8 Ω)
PHONO 70 dB (IHF, A: 80 dB)
CD, VCR 1, VCR 2, TAPE/DCC 75 dB (IHF, A: 88 dB)
Frequency response
PHONO RIAA standard curve (30 Hz–15 kHz)±0.8 dB
CD, VCR 1, VCR 2, TAPE/DCC 10 Hz–40 kHz, ±3 dB
Tone controls
BASS 50 Hz, +10 to −10 dB
TREBLE 20 kHz, +10 to −10 dB
Output voltage
VCR 1 OUT, TAPE/DCC REC (OUT) 200 mV
Channel balance (250 Hz–6.3 kHz) ±1 dB
Channel separation 55 dB
Headphones output level and impedance 430 mV/330 Ω
Load impedance
A or B [For (E, EB, EG) areas.] 4–16 Ω
[For (G, GN) areas.] 8–16 Ω
A and B 8–16 Ω

■ FM TUNER SECTION

Frequency range 87.50–108.00 MHz
Sensitivity
S/N 30 dB 1.5 µV/75 Ω
S/N 26 dB 1.3 µV/75 Ω
S/N 20 dB 1.2 µV/75 Ω
IHF usable sensitivity (IHF '58) 1.5 µV/75 Ω
IHF 46 dB stereo quieting sensitivity 22 µV/75 Ω
Total harmonic distortion
MONO 0.2%
STEREO 0.3%
S/N
MONO 60 dB (75 dB, IHF)
STEREO 58 dB (71 dB, IHF)
Frequency response 20 Hz–15 kHz, +1 dB, −2 dB
Alternate channel selectivity
±400 kHz 65 dB
Capture ratio 1 dB
Image rejection at 98 MHz 40 dB
IF rejection at 98 MHz 70 dB
Spurious response rejection at 98 MHz 70 dB
AM suppression 50 dB
Stereo separation
1 kHz 40 dB
Carrier leak
19 kHz −30 dB (−35 dB, IHF)
38 kHz −50 dB (−55 dB, IHF)
Channel balance (250 Hz–6.3 kHz) ±1.5 dB
Limiting point 1.2 µV

Technics®

Bandwidth	
IF amplifier	180 kHz
FM demodulator	1000 kHz
Antenna terminal(s)	75 Ω (unbalanced)

■ AM TUNER SECTION

• For (E, EB, G, GN) areas.	
Frequency range	
MW	522–1611 kHz (9 kHz steps) 530–1620 kHz (10 kHz steps)
LW	144–288 kHz
Sensitivity	
MW	20 µV, 330 µV/m
LW	45 µV
Selectivity	
MW (at 999 kHz)	55 dB
LW (at 252 kHz)	55 dB
Image rejection	
MW (at 999 kHz)	40 dB
LW (at 252 kHz)	40 dB
IF rejection	
MW (at 999 kHz)	55 dB
LW (at 252 kHz)	55 dB
• For (EG) area.	
Frequency range	522–1611 kHz (9 kHz steps) 530–1620 kHz (10 kHz steps)
Selectivity (S/N 20 dB)	20 µV, 330 µV/m
Selectivity at 999 kHz	55 dB
Image rejection at 999 kHz	40 dB
IF rejection at 999 kHz	55 dB

■ VIDEO SECTION

Output voltage at 1 V input (unbalanced)	1±0.1 Vp-p
Maximum input voltage	1.5 Vp-p
Input/output impedance	75 Ω (unbalanced)

■ GENERAL

Power consumption	
[For (E, EB, GN) areas.]	230 W
[For (EG) area.]	230 W
[For (G) area.]	250 W
Power supply	
[For (E, EB, EG, GN) areas.]	AC 50/60 Hz, 230–240 V
[For (G) area.]	AC 50/60 Hz, 110–127 V/220–240 V
Dimensions (W × H × D)	430 × 158 × 352 mm
Weight	9.5 kg

■ REMOTE CONTROL TRANSMITTER

Control keys	
[For (E, EB, EG) areas.]	38 keys
[For (G, GN) areas.]	53 keys
Dimensions (W × H × D)	
[For (E, EB, EG) areas.]	62 × 27 × 175 mm
[For (G, GN) areas.]	70 × 28 × 215 mm
Weight (including batteries)	
[For (E, EB, EG) areas.]	106 g (3.2 oz)
[For (G, GN) areas.]	160 g (4.8 oz)
Power source	Two UM-4/AAA (Panasonic R03/LR03 or equivalent)

Notes:

1. Design and specifications are subject to change without notice. Weight and dimensions are approximate.
2. Total harmonic distortions is measured by the digital spectrum analyzer.

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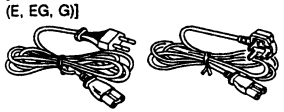
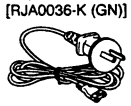
■ ACCESSORIES

AC power supply cord..... 1 pc.
[RJA0019-2K (E, EG, G)] [VJA0733 (EB)]



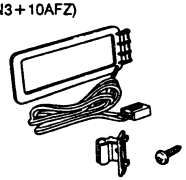
[RJA0036-K (GN)]



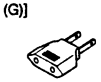
FM indoor antenna ..... 1 pc.
(RSA0007)

Attachment plug..... 1 pc.
[SJP9009 (EB)]

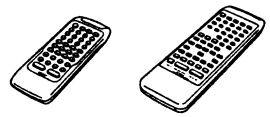
AM loop antenna set..... 1 pc.
(RSA0010)
• AM antenna holder..... 1 pc.
(RMN0244)
• Screw..... 1 pc.
(XTN3+10AFZ)



Power plug adaptor..... 1 pc.
[SJP5213-1 (G)]



Remote control transmitter ..... 1 pc.
[RAK-SA114XH (E, EB, EG)] [RAK-SA704XH (G, GN)]



Batteries for remote control transmitter..... 2 pcs.
("AAA", R03)

Note: These are available on sale route.

Antena plug..... 1 pc.
[RFE0014 (G, GN)]

■ CAUTIONS FOR AC MAINS LEAD

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⓐ or the BSI mark ⓚ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

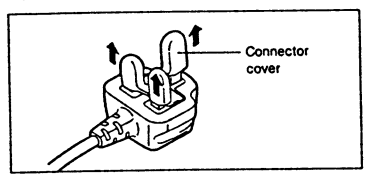
IMPORTANT
The wires in this mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

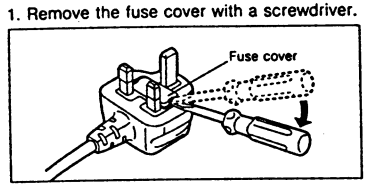
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol ⏚ .

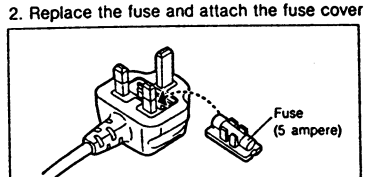
Before use
Remove the connector cover as follows.



How to replace the fuse
1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover



[For (GN) area.]

THIS TUNER/RECEIVER IS CAPABLE OF RECEIVING THE NEW AM STEREO BROADCASTS FROM THE AM BAND RADIO STATIONS. HOWEVER LIKE MANY TUNERS AND RECEIVERS CURRENTLY AVAILABLE ON THE MARKET IT WILL REPRODUCE THIS AM STEREO SIGNAL ONLY IN AM MONO, WHICH, IN EFFECT, IS OF NO LESSER QUALITY THAN YOUR EXISTING AM MONO TUNER/RECEIVER.

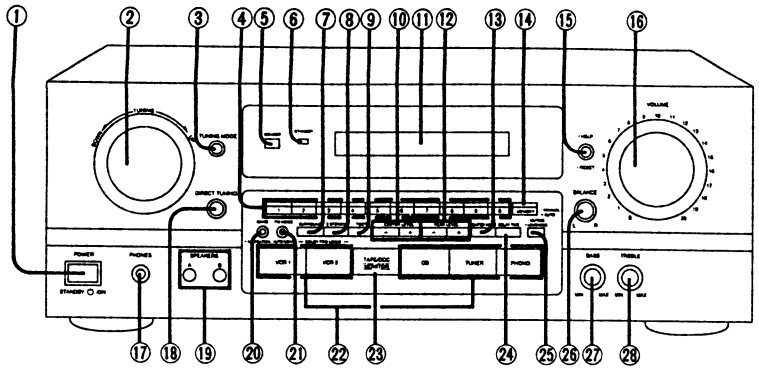
■ PROTECTION CIRCUITRY

The protection circuitry may have operated if either of the following conditions is noticed:
• No sound is heard when the power is turned on.
• Sound stops during a performance.
The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:
1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

Note:
When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

■ FRONT PANEL CONTROLS

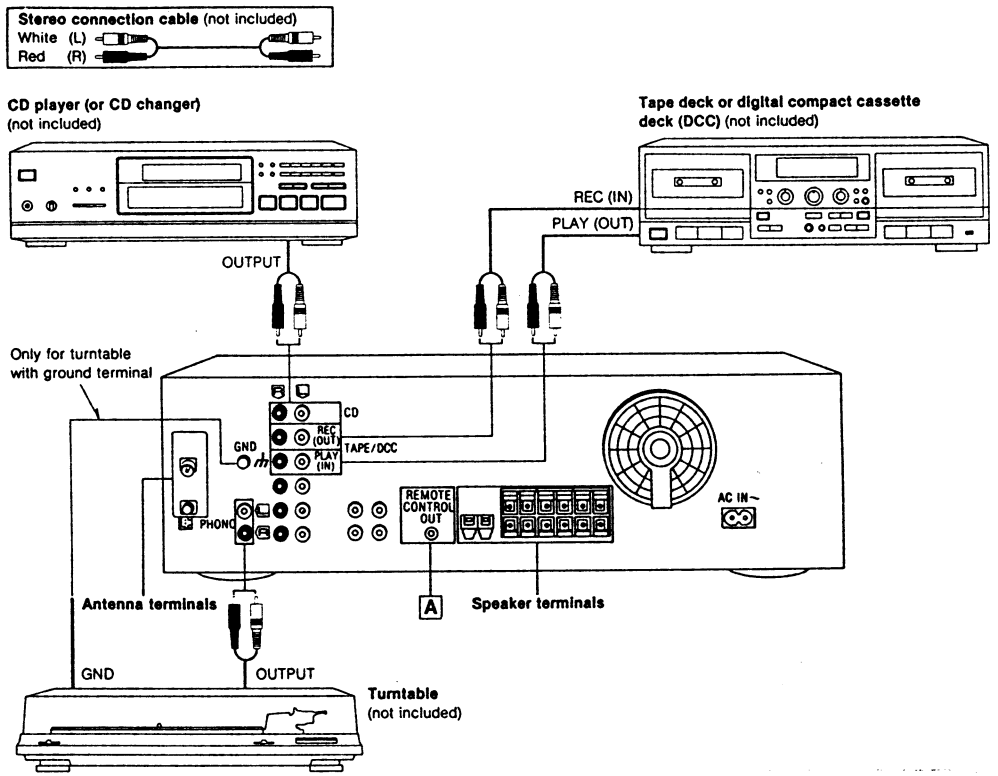


No.	Name
①	**Power "STANDBY ⏻ /ON" switch (POWER, STANDBY ⏻ /ON)** Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
②	**Tuning control (TUNING)**
③	**Tuning mode select button (TUNING MODE)**
④	**Numeric buttons (1 – 0)**
⑤	**Remote control signal receptor (SENSOR)**
⑥	**"STANDBY" indicator** When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
⑦	**DOLBY PRO LOGIC SURROUND ON/OFF button (SURROUND)**
⑧	**DOLBY PRO LOGIC 3 STEREO ON/OFF button (3 STEREO)**
⑨	**Test signal ON/OFF button (TEST)**
⑩	**Center level adjust button (CENTER LEVEL)**
⑪	**Display**
⑫	**Rear level adjust button (REAR LEVEL)**

No.	Name
⑬	**Center mode select button (CENTER MODE)**
⑭	**Memory button (MEMORY)**
⑮	**Help/reset button (-HELP –RESET)**
⑯	**Volume control (VOLUME)**
⑰	**Headphone jack (PHONES)**
⑱	**Direct tuning button (DIRECT TUNING)**
⑲	**Speaker select buttons (SPEAKERS)**
⑳	**Band select button (BAND)**
㉑	**FM mode select button (FM MODE)**
㉒	**Input select buttons**
㉓	**Tape/DCC monitor button (TAPE/DCC [MONITOR])**
㉔	**Delay time adjust button (DELAY TIME)**
㉕	**Muting/loudness button (-MUTING –LOUDNESS)**
㉖	**Balance control (BALANCE)**
㉗	**Bass control (BASS)**
㉘	**Treble control (TREBLE)**

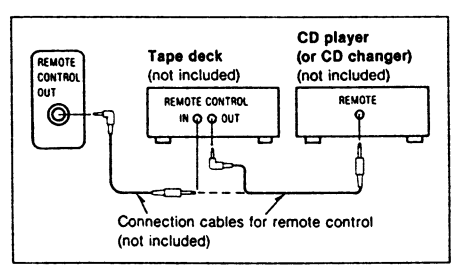
■ EQUIPMENT CONNECTIONS

Connecting audio equipment



A "REMOTE CONTROL OUT" terminal

Connect the connection cable for the remote control to a Technics tape deck and/or CD player (or CD changer) which has the appropriate remote control terminal as shown below. If a tape deck is not being used, the CD player (or CD changer) can be connected directly (dotted line).



For a CD player (or CD changer) with a remote control sensor the above connection is not necessary.

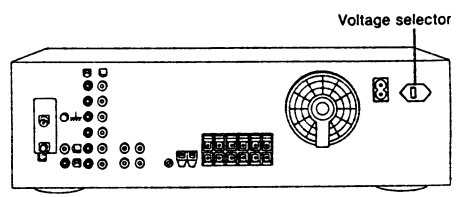
To set the power voltage

[For (G) area only.]

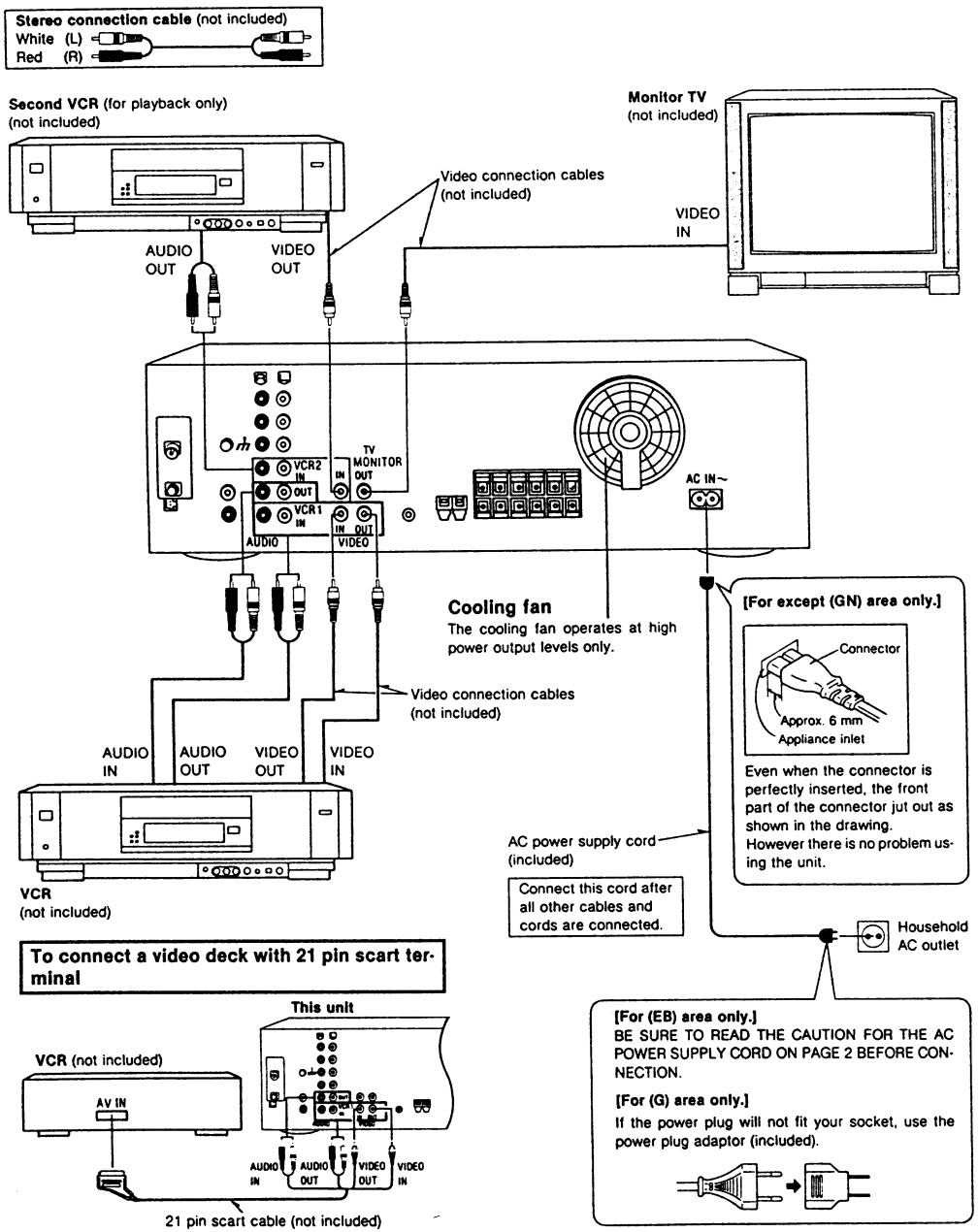
Set the voltage selector to the voltage setting for the area in which the unit will be used.

Note

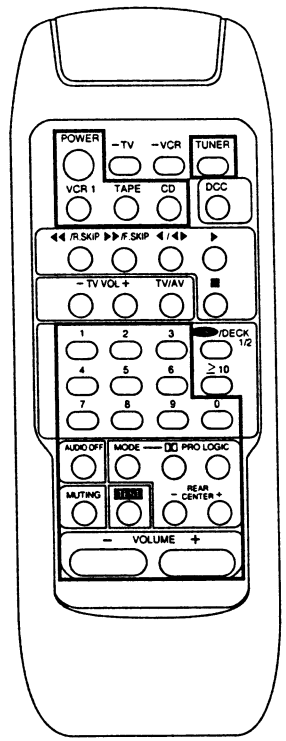
Note that this unit will be seriously damaged if this setting is not made correctly.



Connecting video equipment

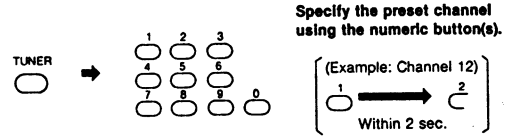


■ REMOTE CONTROL OPERATION



To turn the unit ON/OFF	POWER
To select an input source	TUNER CD TAPE VCR 1
To select the Dolby Pro Logic mode	MODE — PRO LOGIC Changes as follows each time the button is pressed. → SURROUND → 3 STEREO → (OFF)
To adjust the output level of the rear speakers	When the SURROUND mode is ON – REAR +
To adjust the output level of the center speaker	When the 3 STEREO or SURROUND mode is ON – CENTER +
To output a test signal	When the 3 STEREO or SURROUND mode is ON TEST Press once more to stop the test signal.
To mute the sound level	MUTING Press once more to return to the original volume.
To adjust the volume level	– VOLUME +
If your unit is equipped with the New Technics Remote Control System (see below)	
To turn the system OFF	AUDIO OFF

To listen to radio broadcasts



■ BEFORE REPAIR AND ADJUSTMENT

Disconnect AC power, Discharge both Power Supply Capacitors C703 and C704 (63V 6800μF/75V 7500μF), C705 and C706 (35V 4700μF) through a 10Ω, 5W resistor to ground.
DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may distroy solid state devices.
After repairs are completed, restore power gradually using a variac, to avoid overcurrent.
Current consumption at 50Hz/60Hz in NO SIGNAL mode should be shown below with respect to supply voltage AC 230V/240V.

Power supply voltage	AC 230V		AC 240V		AC 110–127V		AC 220–240V	
Consumed current 50/60Hz	50Hz	140~400mA	50Hz	150~420mA	50Hz	400~1000mA	50Hz	150~420mA
	60Hz	112~320mA	60Hz	120~336mA	60Hz	320~800mA	60Hz	120~336mA

■ OPERATION CHECKS AND MAIN COMPONENT REPLACEMENT PROCEDURES

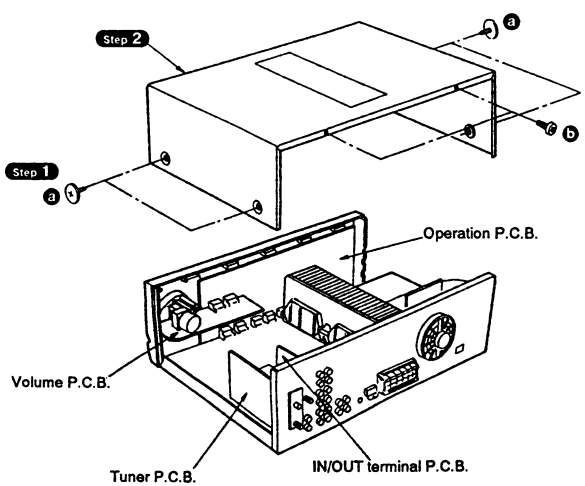
NOTE

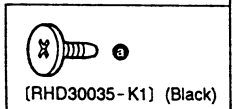
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.
4. Illustrated screws are equivalent to actual size.
5. [ ] indicates parts No.

• Contents

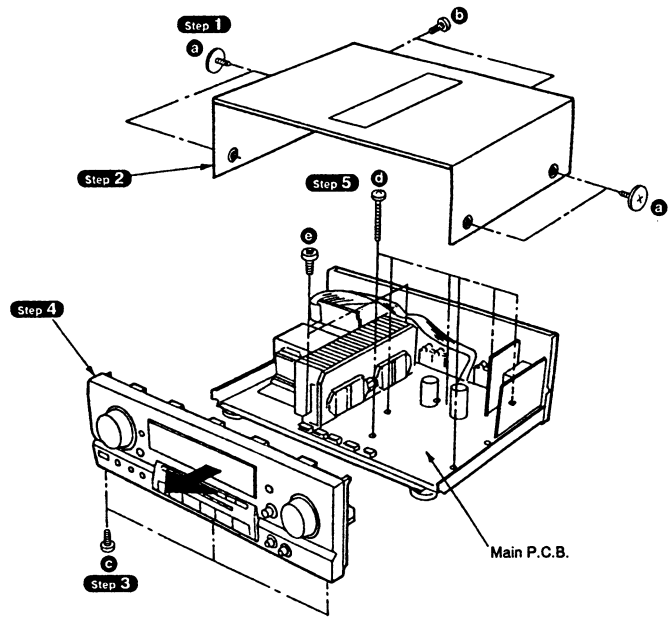
1. Checking for the volume P.C.B.,tuner P.C.B., IN/OUT terminal P.C.B. and operation P.C.B. ..... page. 8.
2. Checking for the main P.C.B. ..... 9.
3. Replacement for the power IC and regulator transistor ..... 10.

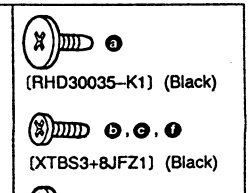
1. Checking for the volume P.C.B.,tuner P.C.B., IN/OUT terminal P.C.B. and operation P.C.B.

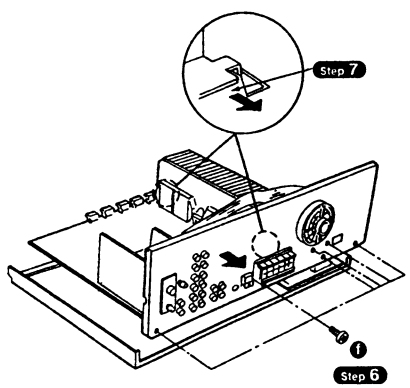


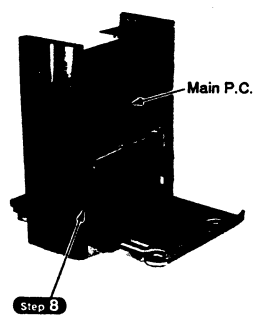


2. Checking for the main P.C.B.





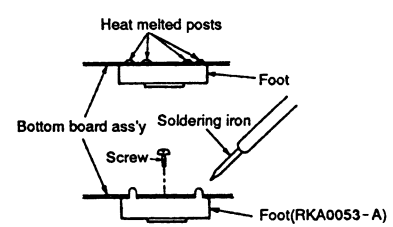




Reinstall the front panel ass'y to the main P.C.B..

• Replacement of the foot

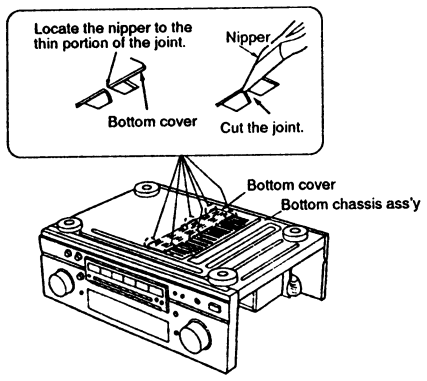
1. Remove the 4 heat melted posts on the Bottom board ass'y with a pair of nippers or similar tool.
2. To replace the foot(RKA0053-A) on the Bottom board ass'y melt the 4 posts with a soldering iron or install it with a screw (XTB3+6J).



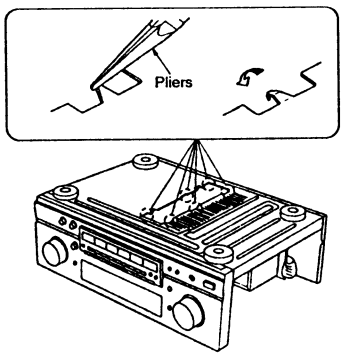
3. Replacement for the power IC and regulator transistor

Step 1 Follow the disassembly procedure described in item 1 on page 8.

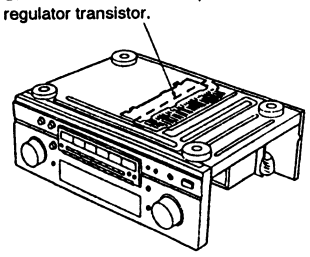
Step 2 Cut the joints as shown below.(6 portions)



Step 3 Fold the joints.(6 portions)

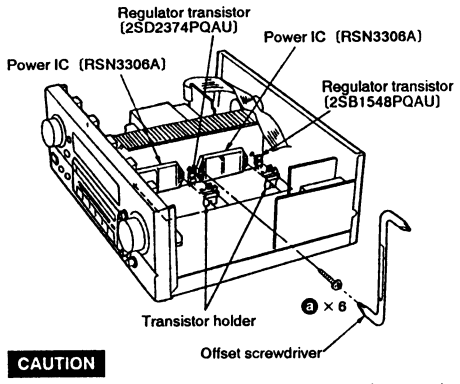


Step 4 Unsolder the terminals of power IC or regulator transistor.

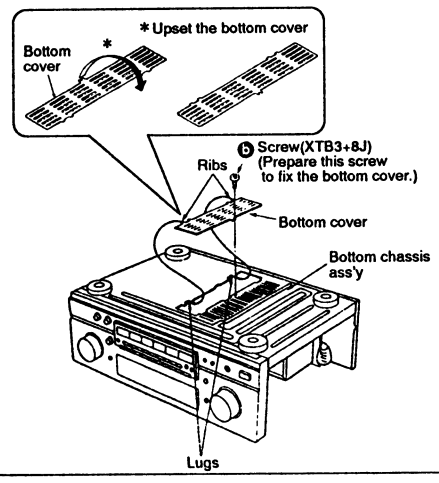


Step 5 Remove the 6 screws.

Step 6 Remove the transistor holder.



Step 7 Fix the bottom cover with screw.



CAUTION

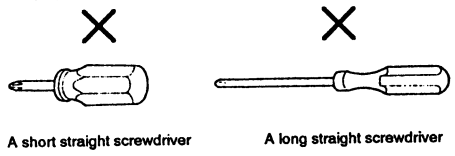
- After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002/SZZ0L15) between the heat sink and the power IC or regulator transistor(Radiation of power IC and regulator transistor).
- Tighten enough the screws (ⓐ) after replacing the power IC or regulator transistor. Otherwise, the heat radiation works little.
- When installing or removing the power IC or transistor holder, be sure to use an offset screwdriver.

ⓐ (XTW3+15T)

ⓑ (Prepare this screw to fix the bottom cover.) (XTB3+8J) (Black)

CAUTION:

1. A long straight screwdriver cannot be used for removal or mounting since its long grip interferes with the neighboring P.C.B.(See Fig.1)
2. A short straight screwdriver may be used for removal, but cannot be used for mounting because the limited space in the unit will not allow sufficient tightening torque. (See Fig.2)



A short straight screwdriver — A long straight screwdriver

Fig.2

3. Insufficient tightening will cause poor heat dissipation from the power IC and regulator transistor and, in the worst case, may lead their thermal breakdown. (See Fig.2)

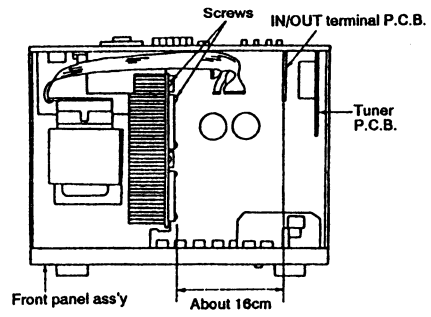
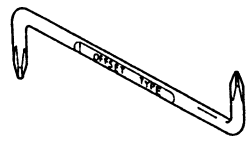


Fig.1

——OFFSET SCREWDRIVER——

- The PROTO offset screwdriver No.34-¼ is recommended for use in the application above.



No.	⊕	⊢ L ⊣
34¼	1 & 2	4¼"

- The address of PROTO International Sales is as follows.

PROTO®

Internatiotal Sales

International Sales Office
Stanley-Proto Industrial Tools
14117 Industrial Park Blvd.
Covington, GA 30209 U.S.A.
Fax: 706-786-4387
Phone: 706-787-3800

Australia, New Zealand & South Pacific
Stanley-Proto Industrial Tools
P.O.Box 10
400 Whitehorse Road
Nunrweding 3131
Victoria, Australia
Fax: 61-3-894-1173
Phone: 61-3-878-9244

Singapore, Indonesia, Philippines, Korea, Hong Kong, Malaysia, China.
Stanley-Proto Asia Pacific
12 Gul Drive
Singapore 2262
Fax: 65-861-3206
Phone: 65-862-0883

Thailand
Stanley-Proto Thailand Ltd.
1017 Moo 13 Bangnatrad
Highway, Tambol Bankaew
Amphur Bangplee
Samutprakarn, Thailand
Fax: 66-2-316-6071
Phone: 66-2-316-8655

Japan
Stanley Works Japan
2-7-16 Hyakunin-Cho
Shinjuku-ku
Tokyo 160 Japan
Fax: 81-3-3360-8456
Phone: 81-3-3360-8458

Mexico
Herramientas Stanley S.A. DE C.V.
Apartado Postal 675
72030 Puebla, Pue, Mexico
Fax: 52-22-494-4880
Phone: 52-22-495-300

South & Central America, Puerto Rico, The Caribbian
Stanley Inter-America
2101 N.W. 84th Ave.
Miami, Florida 33122
Fax: 305-594-4261
Phone: 305-591-3828

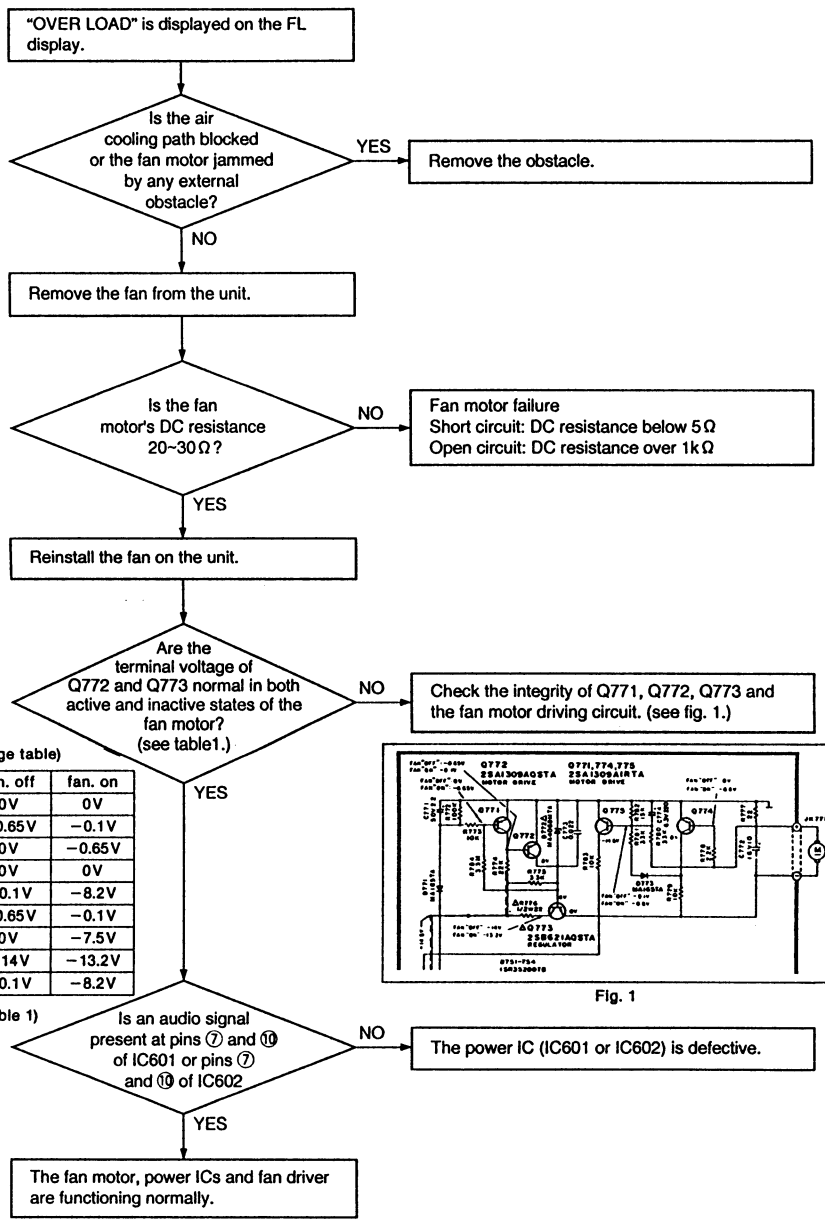
Europe
Stanley-Proto Europe
Woodside, Sheffield
539PD
England
Fax: 44-742-739-038
Phone: 44-742-768-888

Canada
Stanley-Proto Canada
1100 Corporate Drive
Burlington, Ontario
Canada, L7L 5R6
Fax: 416-335-0075
Phone: 416-335-0075

Middle East, Mediterranean & Africa
Stanley-MEMA
Cory House The Ring
Bracknell Berkshire
RG 12 1A2
England
Fax: 44-344-485-526
Phone: 44-344-51813

■ FAN MOTOR TROUBLESHOOTING GUIDE

The Model SA-GX670 employ fan motor error sensing electronics.
If the cooling fan is not operation and "OVER LOAD" is displayed on the FL display, check the fan motor and its driving circuit.



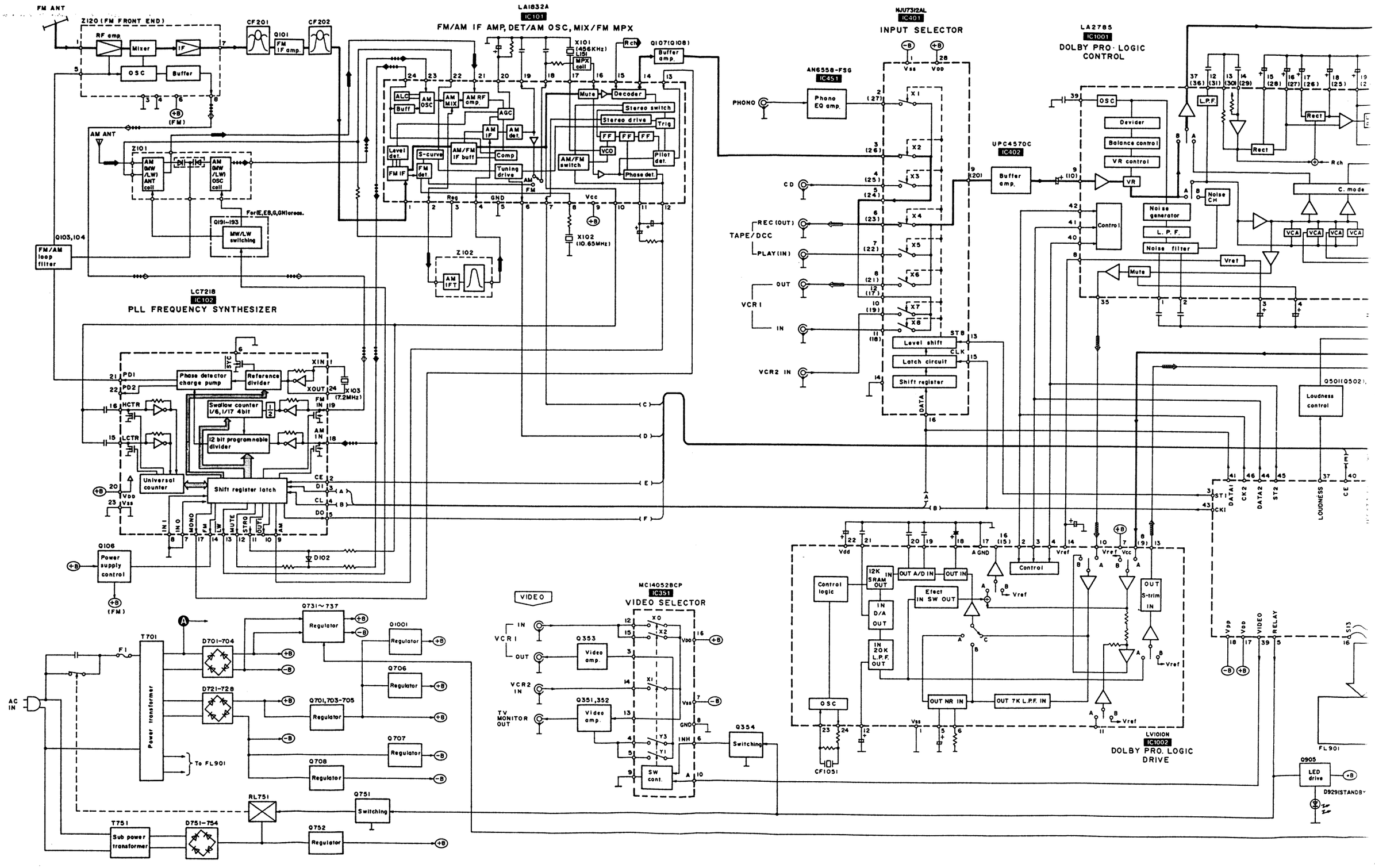
(Voltage table)

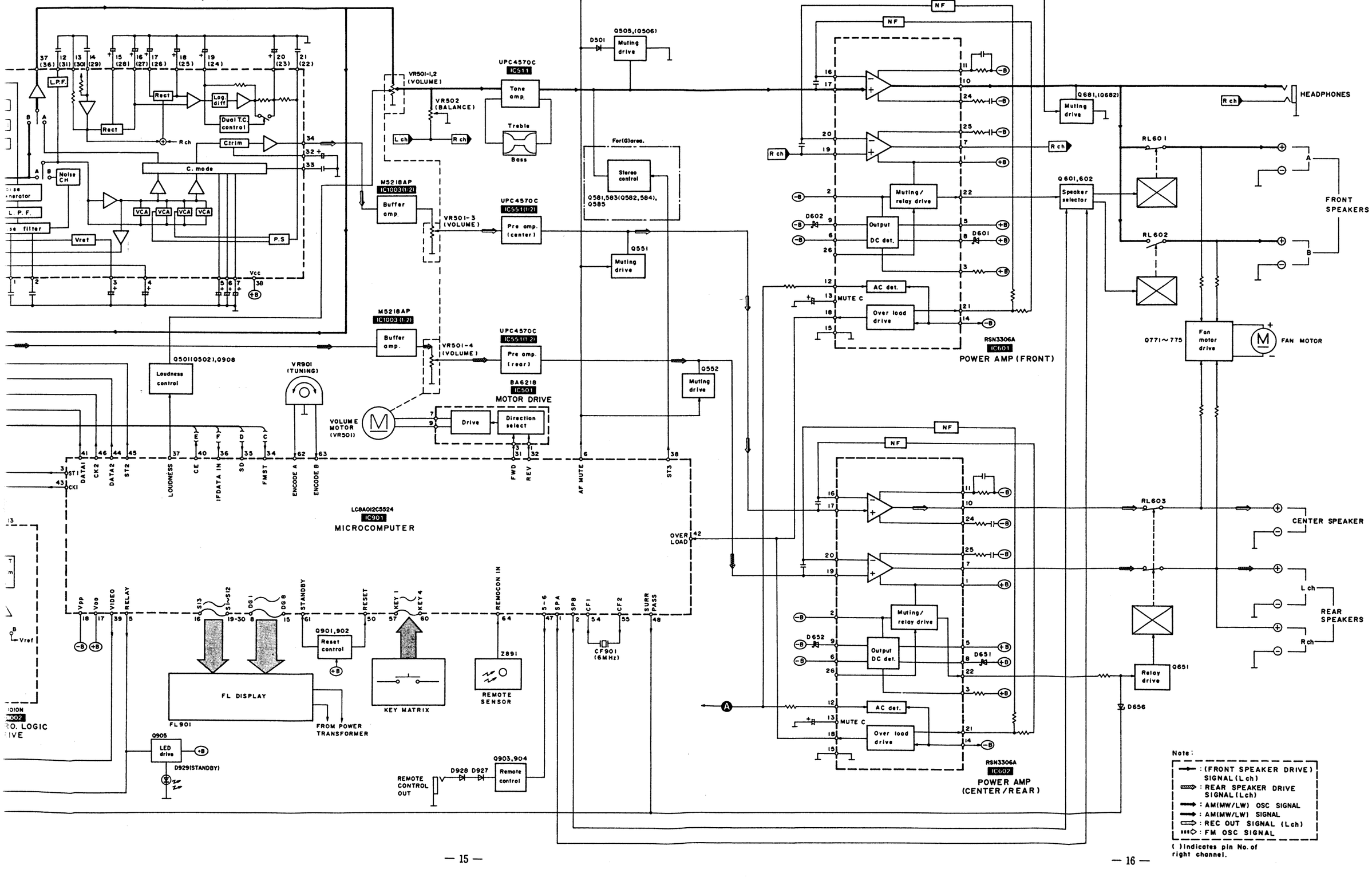
		fan. off	fan. on
Q771	E	0V	0V
	C	−0.65V	−0.1V
	B	0V	−0.65V
Q772	E	0V	0V
	C	−0.1V	−8.2V
	B	−0.65V	−0.1V
Q773	E	0V	−7.5V
	C	−14V	−13.2V
	B	−0.1V	−8.2V

(Table 1)

Fig. 1

■ BLOCK DIAGRAM




L.P.F.
Rect
Log diff
Dual T.C. control
Ctrim
C. mode
Noise CH
VCA
Vref
P.S
Vcc
R ch
VR501-1,2 (VOLUME)
VR502 (BALANCE)
L ch
UPC4570C IC511
Tone amp.
Treble
Bass
M5218AP IC1003(1,2)
Buffer amp.
VR501-3 (VOLUME)
UPC4570C IC551(1,2)
Pre amp. (center)
VR501-4 (VOLUME)
Pre amp. (rear)
M5218AP IC1003(1,2)
Q501(Q502),Q908
Loudness control
VR901 (TUNING)
BA6218 IC501
MOTOR DRIVE
Drive
Direction select
VOLUME MOTOR (VR501)
LC8A012C5524 IC901
MICROCOMPUTER
D501
Muting drive
Q505,(Q506)
For(G)area.
Stereo control
Q581,583(Q582,584), Q585
Q551
Q552
OVER LOAD
AF MUTE
FWD
REV
ENCODE A
ENCODE B
LOUDNESS
IFDATA IN
FM ST
ST1 DATA1
CK1
CK2
DATA2
ST2
ST3
Vpp
Vdd
VIDEO
RELAY
S13
S1~S12
DG1
DG8
STANDBY
RESET
KEY 1
KEY 4
REMOCON IN
SPA
SPB
CF1
CF2
SURR PASS
Q901,902
Reset control
CF901 (6MHz)
Z891
REMOTE SENSOR
FL DISPLAY
FL901
KEY MATRIX
FROM POWER TRANSFORMER
Q905
LED drive
D929(STANDBY)
REMOTE CONTROL OUT
D928 D927
Q903,904
Remote control
NF
Muting drive
Muting/ relay drive
Output DC det.
AC det.
MUTE C
Over load drive
RSN3306A IC601
POWER AMP (FRONT)
RSN3306A IC602
POWER AMP (CENTER/REAR)
Q681,(Q682)
Q601,602
Speaker selector
D602
D601
D652
D651
D656
Q651
RL601
RL602
RL603
HEADPHONES
FRONT SPEAKERS
CENTER SPEAKER
REAR SPEAKERS
Q771~775
Fan motor drive
FAN MOTOR
Note :
: (FRONT SPEAKER DRIVE) SIGNAL (Lch)
: REAR SPEAKER DRIVE SIGNAL (Lch)
: AM(MW/LW) OSC SIGNAL
: AM(MW/LW) SIGNAL
: REC OUT SIGNAL (Lch)
: FM OSC SIGNAL
( )Indicates pin No. of right channel.

■ SCHEMATIC DIAGRAM (Parts list on pages 43~49.)

(This schematic diagram may be modified at any time with the development of new technology.)

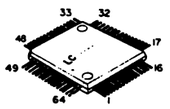
Note 1:

- Signal line
  - : FM OSC signal
  - : AM (MW/LW) OSC signal
  - : Rec out signal (Lch)
  - : Rear speaker drive signal (Lch)
  - : Positive voltage lines
  - : Negative voltage lines
  - : FM signal
  - : AM (MW/LW) signal
  - : AF signal (Lch)
  - : Center speaker drive signal (Lch)

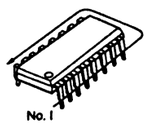
- Important safety notice
  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used as occation calls. When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.
- All voltage values shown in circuitry are DC voltage in FM signal (Stereo signal) reception mode.
- ＊Figures in ( ) stand for DC-voltage in MW signal reception mode.
- ＊Figures in 〈 〉 stand for DC-voltage in LW signal reception mode.
- **Caution!**
  IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with alminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

● Terminal guide of IC's, transistors and diodes

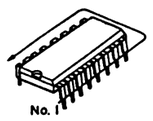
LC8A012C5524



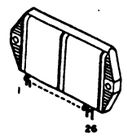
M5218AP	8Pin
LV1010N	24Pin
LA1832A	24Pin
LC7218	24Pin



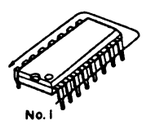
AN6558-FSG	8Pin
LA2785	42Pin



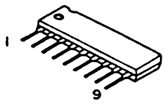
RSN3306A



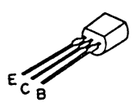
UPC4570C	8Pin
MC14052BCP	16Pin
NJU7312AL	28Pin



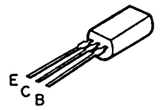
BA6218



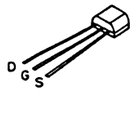
2SA992EFTA
2SB621AQSTA

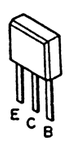


2SC3940AQSTA



2SJ40CDTA

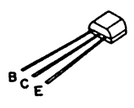




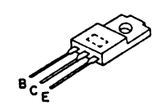
2SA1309AIRTA
2SC2785FETA
2SC2787LTA
2SC3311AIRTA
2SC3311ARSTA
UN411FTA
UN4113TA

UN421FTA
UN4211TA
UN4213TA
UN4214TA
2SA1309AQSTA

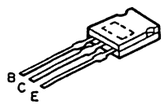
2SC3327ABTP

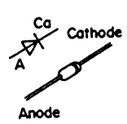


2SD2374PQAU
2SB1548PQAU

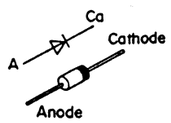


2SB1357DEFTA
2SD2037DEFTA

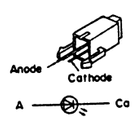




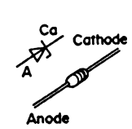
MA165TA
MA700ATA
1SS291TA
1SR35200TB



P300DLF
P300D5002T
SB3606501T

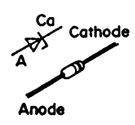


LN018304P

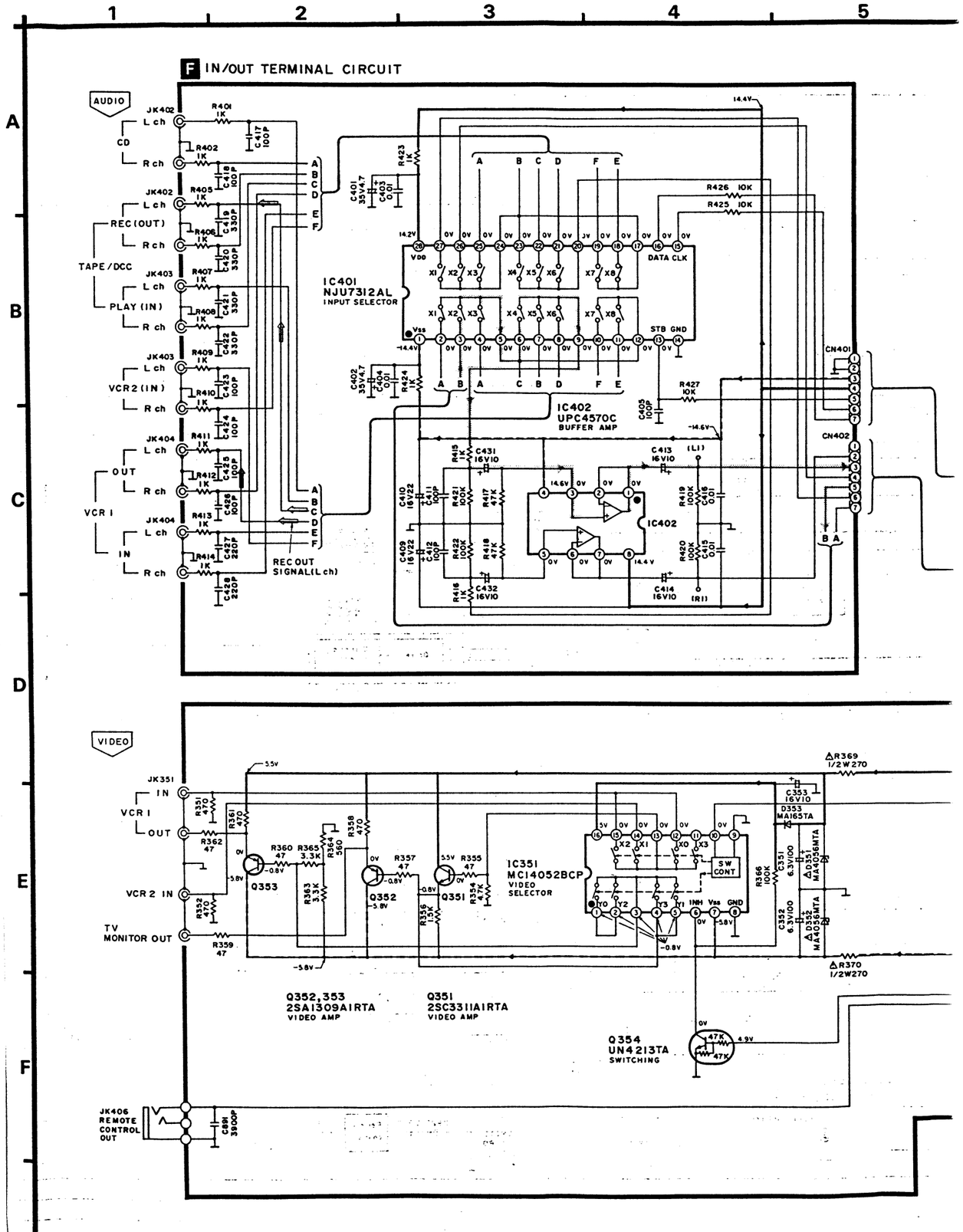


MA4030MTA
MA4039MTA
MA4047MTA
MA4056MTA
MA4062MTA
MA4068MTA
MA4075MTA

MA4051MTA
MA4270MTA

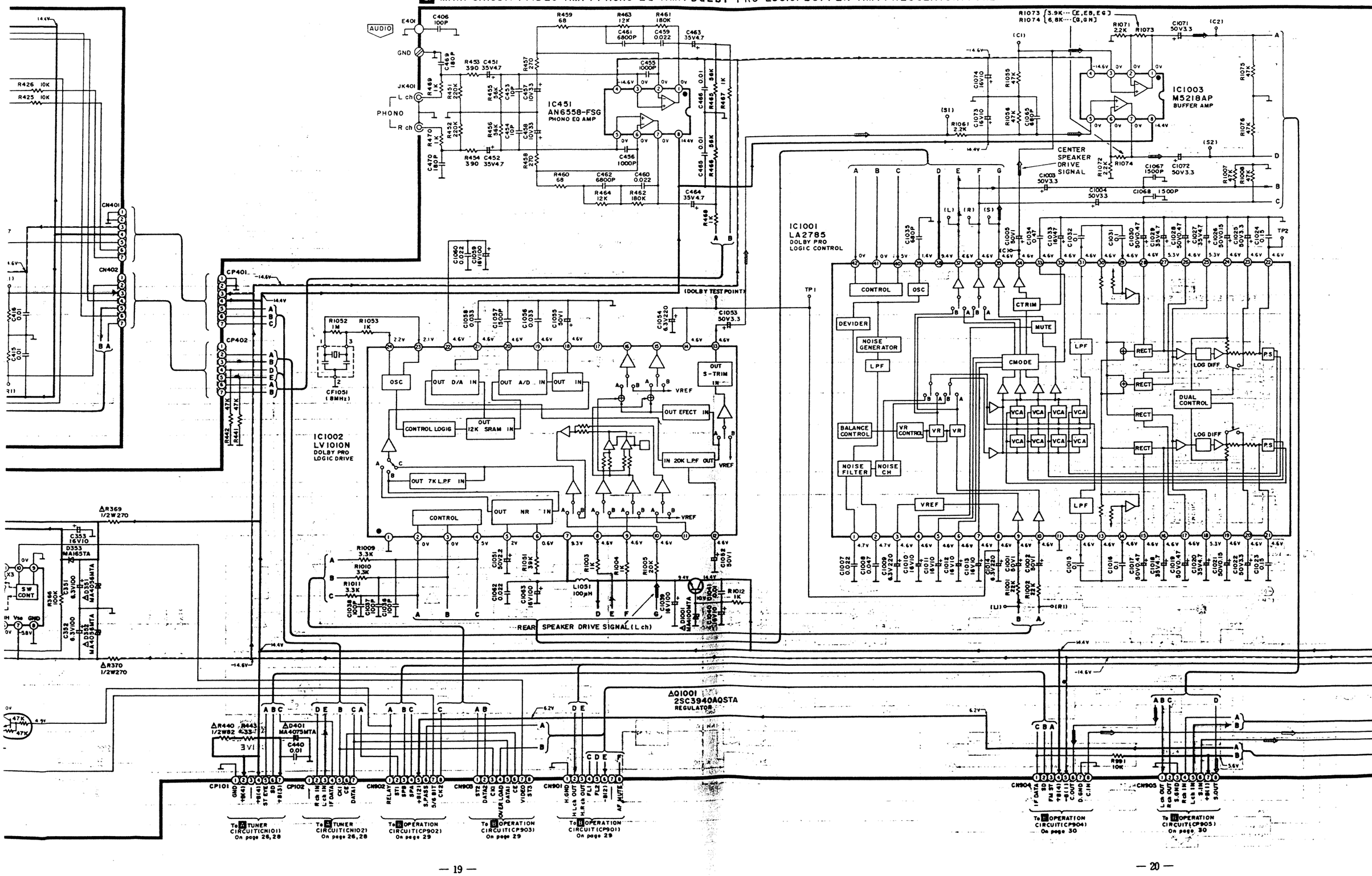


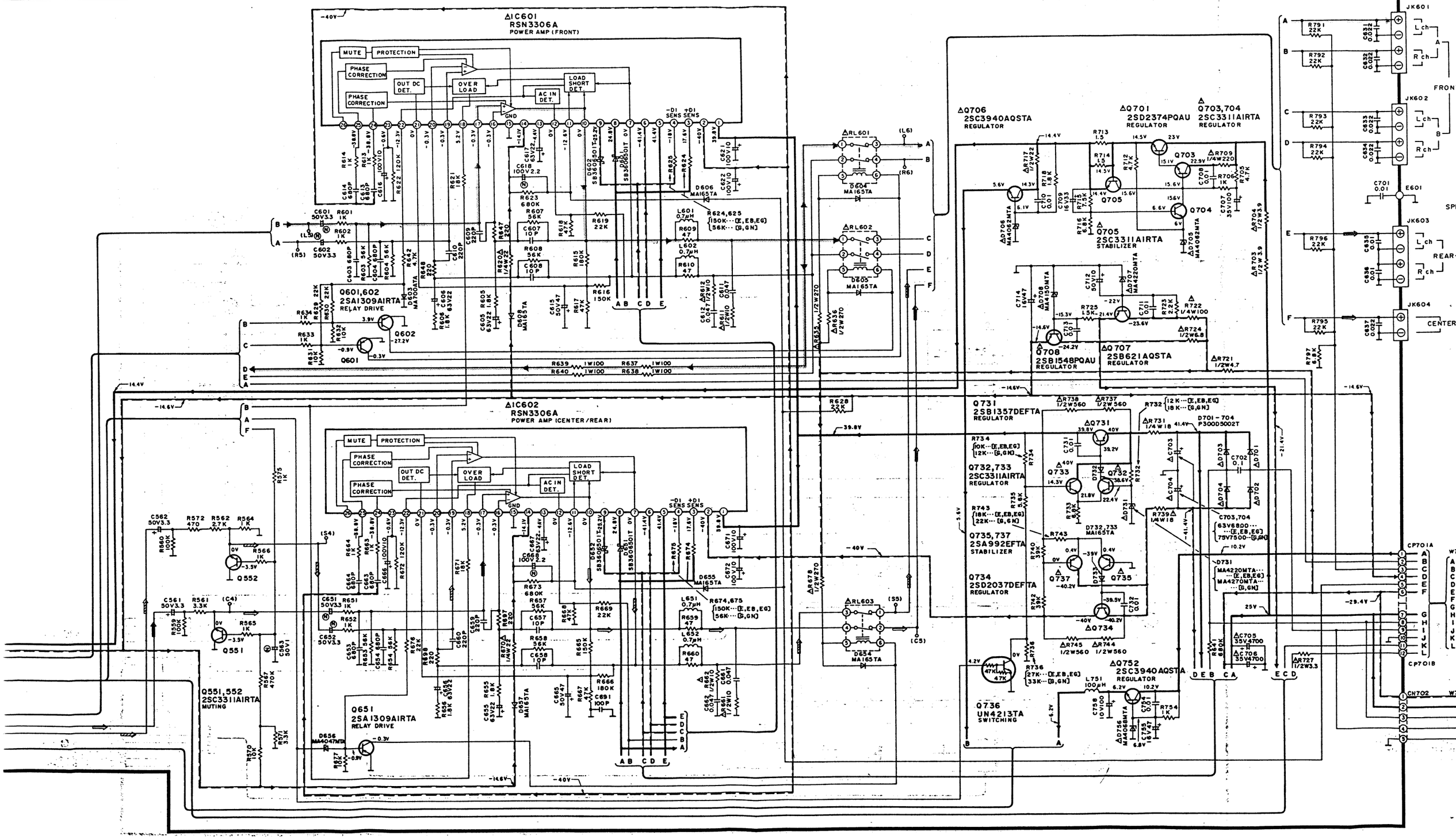
MA4100MTA
MA4150MTA
MA4220MTA

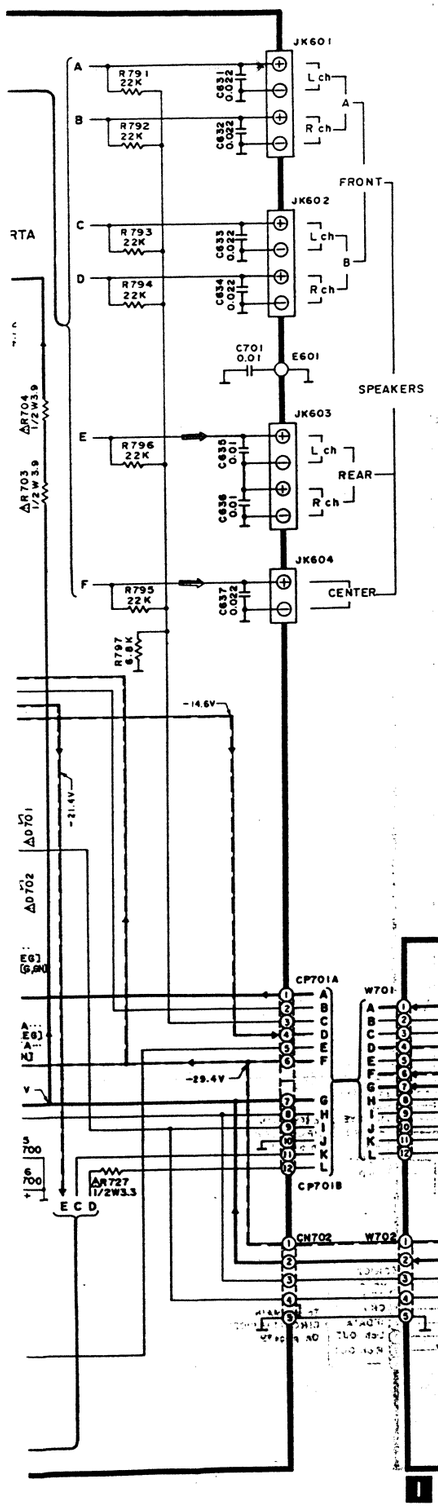


5 6 7 8 9 10 11 12 13 14

G MAIN CIRCUIT (VIDEO AMP/PHONO EQ AMP/DOLBY PRO LOGIC/BUFFER AMP/REGULATOR/POWER AMP)




△IC601
RSN3306A
POWER AMP (FRONT)
MUTE
PROTECTION
PHASE CORRECTION
OUT DC DET.
OVER LOAD
LOAD SHORT DET.
AC IN DET.
GND
-D1 SENS
+D1 SENS
△IC602
RSN3306A
POWER AMP (CENTER/REAR)
△Q706
2SC3940AQSTA
REGULATOR
△Q701
2SD2374PQAU
REGULATOR
△Q703,704
2SC3311AIRTA
REGULATOR
Q601,602
2SA1309AIRTA
RELAY DRIVE
Q551,552
2SC3311AIRTA
MUTING
Q651
2SA1309AIRTA
RELAY DRIVE
△Q705
2SC3311AIRTA
STABILIZER
△Q708
2SB1548PQAU
REGULATOR
△Q707
2SB621AQSTA
REGULATOR
Q731
2SB1357DEFTA
REGULATOR
Q732,733
2SC3311AIRTA
REGULATOR
Q735,737
2SA992EFTA
STABILIZER
Q734
2SD2037DEFTA
REGULATOR
Q736
UN4213TA
SWITCHING
△Q752
2SC3940AQSTA
REGULATOR
△RL601
△RL602
△RL603
D604 MA165TA
D605 MA165TA
D654 MA165TA
D701-704 P300D5002T
JK601
JK602
JK603
JK604
E601
CP701A
CP701B
CN702
L ch
R ch
FRONT
REAR
CENTER
SP



H POWER SUPPLY CIRCUIT

FAN "OFF": −0.65V
FAN "ON": −0.1V
Q772 2SA1309AQSTA MOTOR DRIVE
Q771,774,775 2SA1309AIRTA MOTOR DRIVE
FAN "OFF": 0V
FAN "ON": −0.65V
FAN "OFF": 0V
FAN "ON": −0.8V
ΔQ773 2SB621AQSTA REGULATOR
FAN "OFF": −14V
FAN "ON": −13.2V
FAN "OFF": −0.1V
FAN "ON": −0.8V
D751–754 1SR35200TB
0751 UN421FTA RELAY DRIVE

I POWER TRANSFORMER CIRCUIT

Power Source Circuit For [G]area.

H POWER SUPPLY CIRCUIT

Q772 2SA1309AQSTA MOTOR DRIVE
Q771,774,775 2SA1309AIRTA MOTOR DRIVE
ΔQ773 2SB621AQSTA REGULATOR
D751–754 1SR35200TB
0751 UN421FTA RELAY DRIVE
M771 FAN MOTOR

J AC IN CIRCUIT

JK793
AC IN
(110V~127V/220V~240V 50/60Hz)
110V~127V ⟷ 220V~240V
S701 (VOLT. ADJ.)
F1 T4A
F2 T2A

I POWER TRANSFORMER CIRCUIT

A TUNER CIRCUIT For [E,EB,G,GN]areas.

Z120 FM FRONT END (ENV17290GIR)

2SK238 RF AMP

2SC2620 FM MIXER

2SK360 FM OSC

2SC2996 BUFFER AMP

JK101 FM ANT (75Ω)

FM SIGNAL

Q101 2SC2787LTA FM 1F AMP

Q106 UN411FTA POWER SUPPLY (FM:ON)

FM +B LINE

Q107,108 2SC3311ARSTA BUFFER AMP

AF (SPEAKER DRIVE/Lch) SIGNAL

IC101 LA1832A FM/AM IF AMP, DET/AM OSC, MIX/FM MPX

AM OSC | AM MIX | AM RF AMP | FM/AM IF AMP | DET. | VCO | FREQUENCY DIVIDER | DECODER | STEREO SWITCH | PHASE DET.

RECEIVED SIGNAL-0V

0V FM STEREO

JK101 AM ANT

AM (LW/MW) SIGNAL

JK101 AM LOOP ANT

AM (LW/MW) OSC SIGNAL

FM OSC SIGNAL

MW ANT | MW OSC | LW ANT | LW OSC

Q191–193 2SC3311ARSTA LW/MW SWITCHING

Q191 | Q192 | Q193

V [FM] 10.8V / 3V — 87.5MHz — 108MHz

Q103,104 2SC2785FETA FM/AM (LW/MW) LOOP FILTER

V (LW) 5.4V / 1V — 144KHz — 288KHz

V (MW) 6.5V / 0.8V — 530KHz — 1620KHz

IC102 LC7218 PLL FREQUENCY SYNTHESIZER

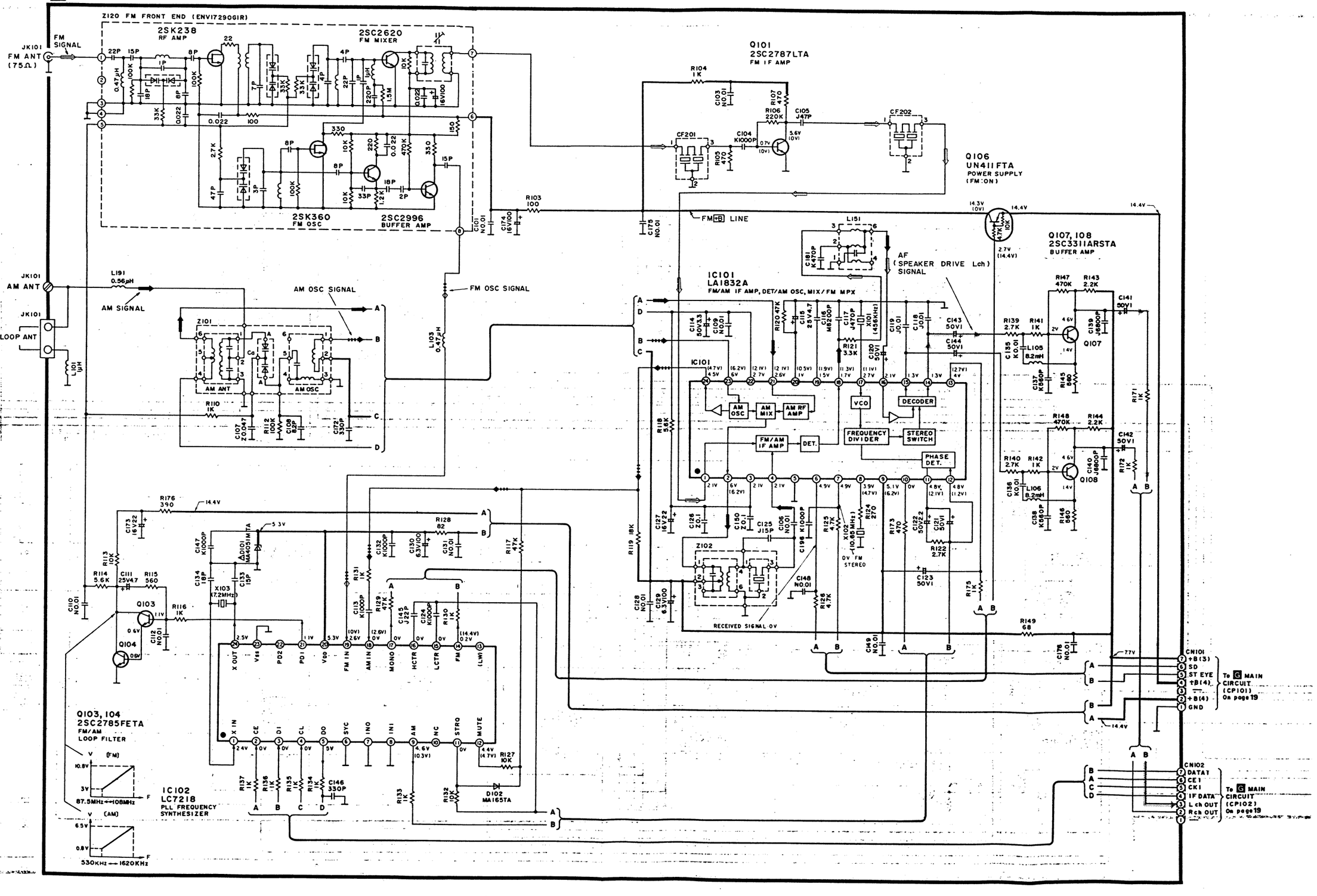
D102 MA165TA

CN101 +B(3) SD ST EYE +B(4) — +B(4) GND — To G MAIN CIRCUIT (CP101) On page19

CN102 DATA I CE I CK I IFDATA Lch OUT Rch OUT — — To G MAIN CIRCUIT (CP102) On page19

10 11 12 13 14 15 16 17 18 19

A TUNER CIRCUIT For [EG] area.



C POWER SWITCH CIRCUIT

S978 (POWER) R978 12K

B OPERATION CIRCUIT

D VOLUME CIRCUIT

To G MAIN CIRCUIT (CN902) On page 19

To G MAIN CIRCUIT (CN903) On page 19

To G MAIN CIRCUIT (CN901) On page 19

To G MAIN CIRCUIT (CN904) On page 20

To G MAIN CIRCUIT (CN905) On page 20

CP902 RELAY STI SPB SPA +B(2) S.PASS 5/6BIT CK2 CP903 ST2 DATA2 CK1 OVER LOAD DATA1 CE VIDEO ST3 CP901

H.GND H.Lch IN H.Rch IN H.FL2 FL2 +B(2) AF MUTE

CN913 CP913 CP904 IF DATA SD BU ST +B(1) C.IN D.GND C.OUT

CP905 L.ch IN R.ch IN S.GND R.ch OUT L.ch OUT S.OUT +B(1) S.IN

FL901 (RSL0138-F) FL DISPLAY

D353 MA165TA

C911 50V22 C912 50V22 C909 50V22 C910 50V22

R930 100 R931 1K -21.4V

C928 330P C927 330P C926 330P C925 330P C924 330P C923 330P C922 330P C921 330P

For (E,EB,G,GN) areas. D906 MA165TA D903 MA4056MTA C914 35V10 C913 35V10

D907 MA165TA D908 MA165TA

R907 100K R905 100K R906 100K R910 100K

R1201 1K R1202 1K

D917 1SS291TA C844 100P C906 6.3V100

IC901 LC8A012C5524 MICRO COMPUTER

T=2.4ms. 4.5V 0V

INI FMST SD IFDATAIN LOUDNESS ST3 VIDEO CE DATA1 OVER LOAD CK1 DATA2 ST2 CK2 5-6 SURR PASS

S13 DG8 DG7 DG6 DG5 DG4 DG3 DG2 DG1 NC AF MUTE RELAY NC STI SPB SPA

R912 1K R914 100K

R1205 1K R1206 1K R1207 27K R1208 1K R1209 1K R1210 1K R1211 1K R1212 1K R1213 1K R1214 1K R1215 1K R1216 1K

R1207 For (G,GN) areas.

C939 100P C938 100P C937 100P C819 0.01

D928 MA165TA D927 MA165TA

F=6MHz F=6MHz L4V P-P 5.2V P-P

CF901 (6MHz) R901 1K R911 100K C903 0.01 C901 6.3V1000 C904 0.01 C835 6.3V100 R904 100K R903 100K

Z891 RCDNC-278N (REMOTE SENSOR)

Q903 UN4113TA SWITCHING (REMOTE)

Q904 UN4214TA SWITCHING (REMOTE)

Q902 Q901 Q905 2SA1309AIRTA LED DRIVE

Q902 2SA1309AIRTA HOLD

Q901 UN4214TA RESET

D921 MA165TA D929 LNO983O4P (STANDBY)

R920 270 R921 120 R922 MA4039MTA C908 0.01 R928 2.2K R929 0.6K R926 1.2K R927 4.7K

C916 50V1 D901 1SS291TA L901 100μH C917 50V1 R902 4.7K

VR901 (TUNING)

Q581,582,585 2SA1309AIRTA LIMITTER

For (G,GN) areas.

R591 2.2K R587 2.2K R583 1K R585 1K R584 1K R586 1K R592 2.2K R588 2.2K R590 4.7K

D581 MA4030MTA D582 MA4030MTA C581 6.3V100 C582 6.3V100 R589 1K

Q581 Q583 Q582 Q584 Q585

Q583,584 2SC3327ABTP LIMITTER

R531, 3.3K···(E,EB,EG,GN) R532 2.2K···(G)

Q505,506 2SC3327ABTP MUTING (-20dB)

R531 C533 16V10 R532 C534 16V10

Q505 Q506 R543 1K R544 1K C536 50V1 R533 R534

R533, 2.2K···(E,EB,EG,GN) R534 2.7K···(G)

R545 820K R546 3.3K

R901 2.2K R902 2.2K

CP502 CN502 CP501 CN501

R506 10K R505 10K R507 15K

IC551 UPC4570C PRE AMP (CENTER/REAR)

IC501 BA6218 MOTOR DRIVE

D501 MA165TA R501 470 R502 470 Q908 UN4211TA SWITCHING (LOUDNESS) R490 15K

S946 (5) S947 (CENTER LEVEL-) S948 (TEST) S949 (4)

S950 (6) S960 (REAR LEVEL+) S970 (TAPE/DCC MONITOR) S980 (3 STEREO)

S951 (CENTER LEVEL+) S961 (8) S971 (VCR2) S981 (SPEAKERS A)

S952 (7) S962 (0) S972 (VCR1) S982 (SURROUND)

S953 (REAR LEVEL-) S963 (DELAY TIME) S973 (SPEAKERS B) S983 (3)

S954 (CD) S964 (PHONO) S974 (FM MODE) S984 (2)

S955 (TUNER) S966 (MEMORY) S975 (BAND) S985 (1)

S956 (CENTER MODE) S976 (DIRECT TUNING) S986 (TUNING MODE)

S957 (9) S968 (-HELP -RESET)

S958 (+MUTING -LOUDNESS)

R946 10K R947 10K R948 10K R949 10K R950 R951 R952 R953 R954 R955 R956 R957 R958 R960 R961 R962 R963 R964 R965 R966 R967 R968 R970 R971 R972 R973 R974 R975 R976 R977 R980 R981 R982 R983 R984 R985 R986

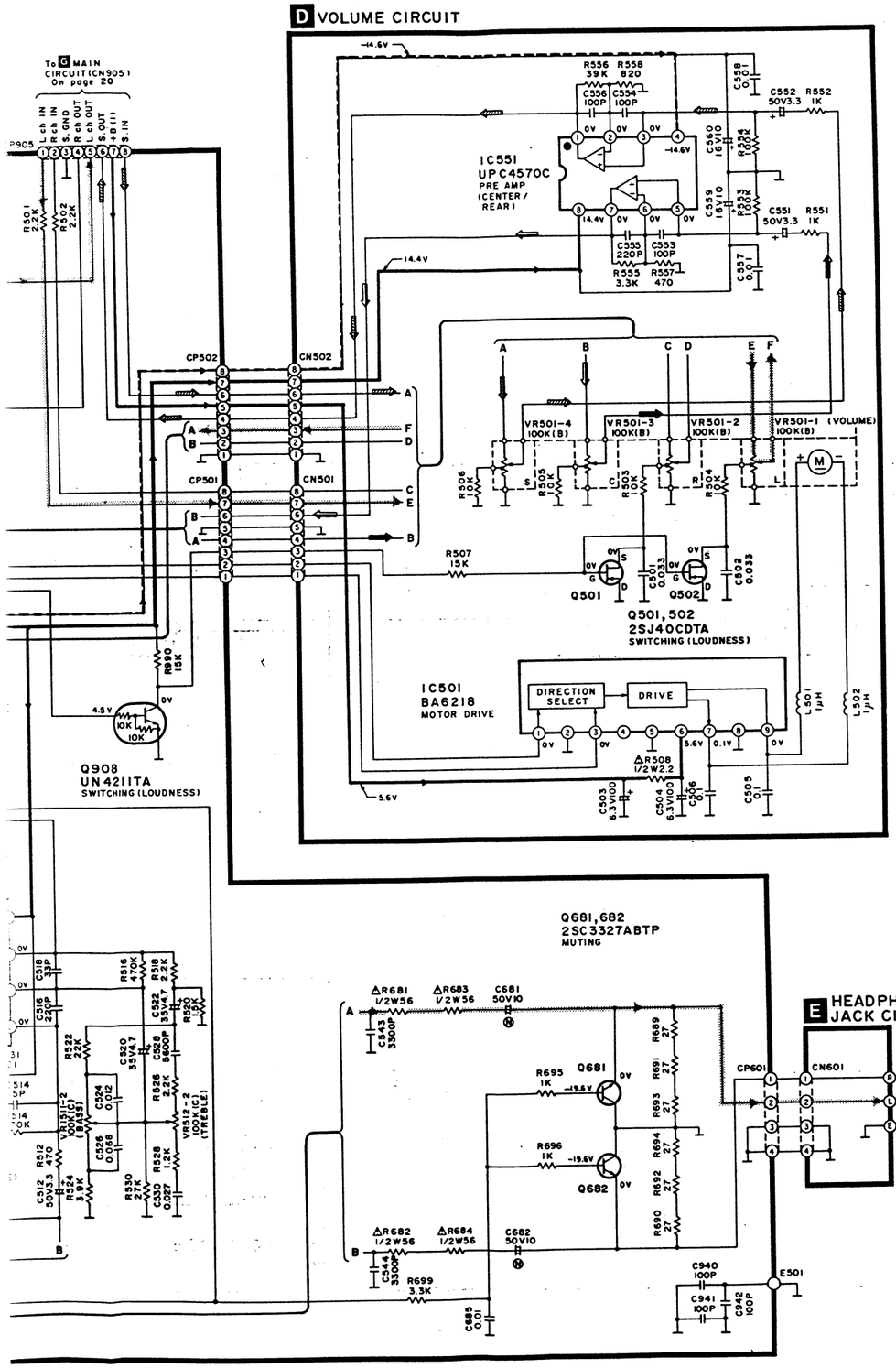
IC511 UPC4570C TONE AMP

R515 470K R516 470K R517 2.2K R518 2.2K R519 1.8K C515 220P C516 220P C517 33P C518 33P C521 35V4.7 C519 35V4.7 C522 35V4.7 C520 35V4.7 R521 22K R522 22K R523 22K R524 3.9K R525 470K R526 2.2K R527 22K R528 1.2K R529 27K R530 22K C523 0.012 C524 0.012 C525 0.068 C526 0.068 C527 0.027 C528 6800P C529 0.027 C530 0.027 C532 0.01 C531 0.01 C512 50V3.3 R512 470 R511 470 C511 50V3.3 R513 470K R514 470K VR511-1 100K(C) (BASS) VR511-2 100K(C) (TREBLE) VR512-1 100K(C) (TREBLE) VR512-2 100K(C) (TREBLE) (BALANCE) VR502 100K(G)

R681 1/2W56 R683 1/2W56 C681 50V10 C643 3300P R691 1K R692 1K R682 1/2W56 R684 1/2W56 C682 50V10 C644 3300P R699 3.3K C685 0.01

29 30 31 32 33 34 35 36 37 38

D VOLUME CIRCUIT



Note 2:

- **S701** : Voltage selector switch in **"240V"** position. (110V ↔ 127V ↔ 220V ↔ 240V) [For (G) area only.]
- **S946** : Numeric (5) switch.
- **S947** : Center level adjust (CENTER LEVEL (−)) switch.
- **S948** : Test signal ON/OFF (TEST) switch.
- **S949** : Numeric (4) switch.
- **S950** : Numeric (6) switch.
- **S951** : Center level adjust (CENTER LEVEL (+)) switch.
- **S952** : Numeric (7) switch.
- **S953** : Rear level adjust (REAR LEVEL (−)) switch.
- **S954, 955** : Input select switches. (S954: CD, S955: TUNER)
- **S956** : Center mode select (CENTER MODE) switch.
- **S957** : Numeric (9) switch.
- **S958** : Muting/Loudness (-MUTING−LOUDNESS) switch.
- **S960** : Rear level adjust (REAR LEVEL (+)) switch.
- **S961** : Numeric (8) switch.
- **S962** : Numeric (0) switch.
- **S963** : Delay time adjust (DELAY TIME) switch.
- **S964** : Input select (PHONO) switch.
- **S966** : Memory (MEMORY) switch.
- **S968** : Help/reset (-HELP−RESET) switch.
- **S970** : Tape/DCC monitor (TAPE/DCC MONITOR) switch.
- **S971, 972** : Input select switch. (S971: VCR 2, S972: VCR 1)
- **S973** : Speaker select (SPEAKERS B) switch.
- **S974** : FM mode select (FM MODE) switch.
- **S975** : Band select (BAND) switch.
- **S976** : Direct tuning (DIRECT TUNING) switch.
- **S978** : Power (POWER) switch.
- **S980** : DOLBY PRO LOGIC 3 STEREO ON/OFF (3 STEREO) switch.
- **S981** : Speaker select (SPEAKERS A) switch.
- **S982** : DOLBY PRO LOGIC SURROUND ON/OFF (SURROUND) switch.
- **S983** : Numeric (3) switch.
- **S984** : Numeric (2) switch.
- **S985** : Numeric (1) switch.
- **S986** : Tuning mode select (TUNING MODE) switch.

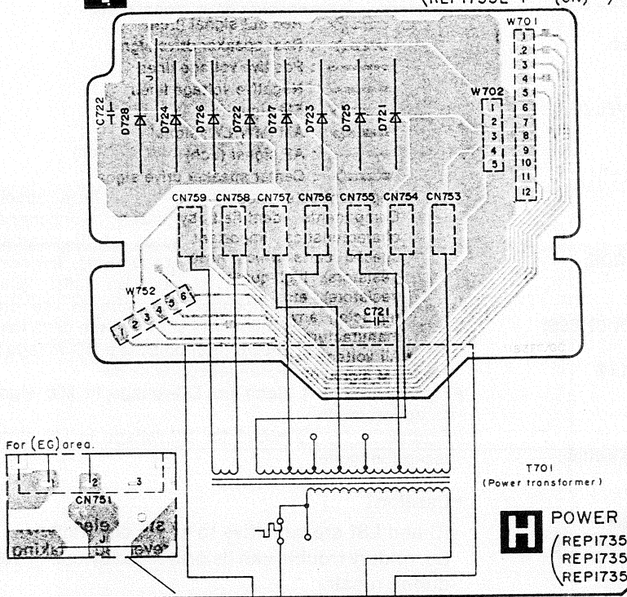
- Signal line
  - : FM OSC signal
  - : AM (MW/LW) OSC signal
  - : Rec out signal (Lch)
  - : Rear speaker drive signal (Lch)
  - : Positive voltage lines
  - : Negative voltage lines
  - : FM signal
  - : AM (MW/LW) signal
  - : AF signal (Lch)
  - : Center speaker drive signal (Lch)
- Important safety notice
  Components identified by ⚠ mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used as occation calls. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
- All voltage values shown in circuitry are DC voltage in FM signal (Stereo signal) reception mode.
- *Figures in ( ) stand for DC-voltage in MW signal reception mode.
- *Figures in < > stand for DC-voltage in LW signal reception mode.

- **Caution!**

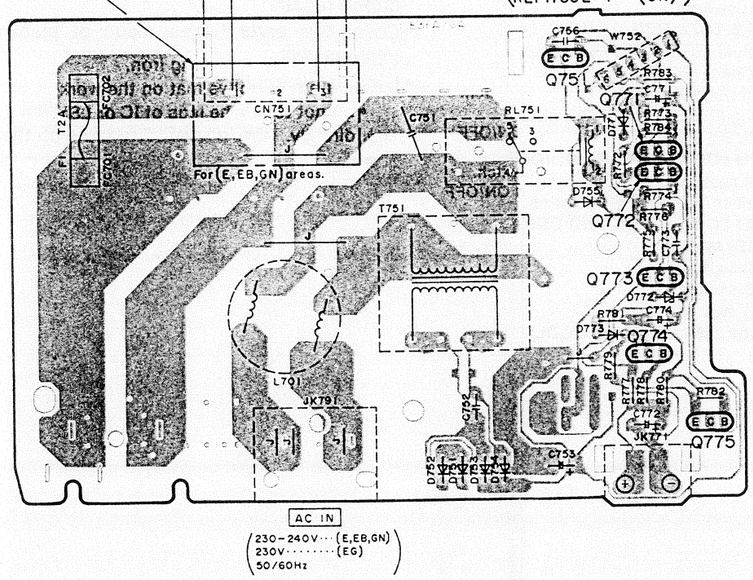
  IC and LSI are sensitive to static electricity. Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with alminum foil.
- Ground the soldering iron.
- Put a conductive mat on the work table.
- Do not touch the legs of IC or LSI with the fingers directly.

■ PRINTED CIRCUIT BOARDS

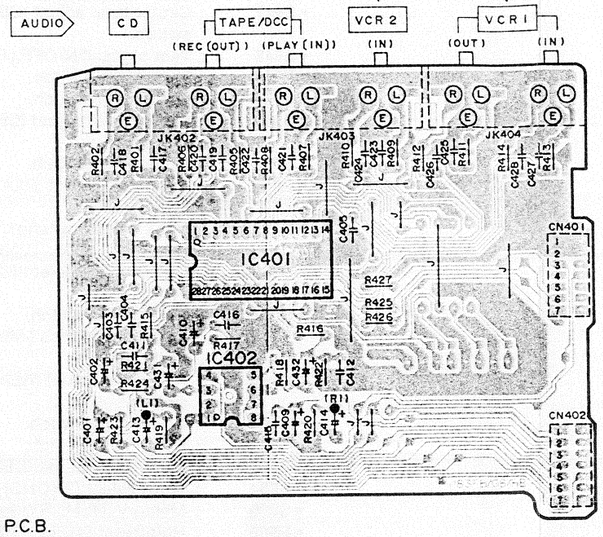
I POWER TRANSFORMER P.C.B. (REPI735B-P···(E,EB) REPI735C-P···(EG) REPI735E-P···(GN))



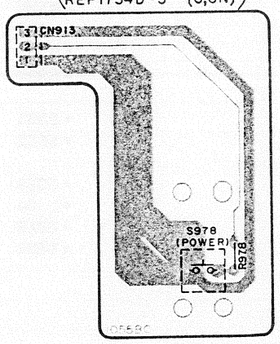
H POWER SUPPLY P.C.B. (REPI735B-P···(E,EB) REPI735C-P···(EG) REPI735E-P···(GN))



F IN/OUT TERMINAL P.C.B. (REPI735B-P···(E,EB) REPI735C-P···(EG) REPI735D-P···(G) REPI735E-P···(GN))

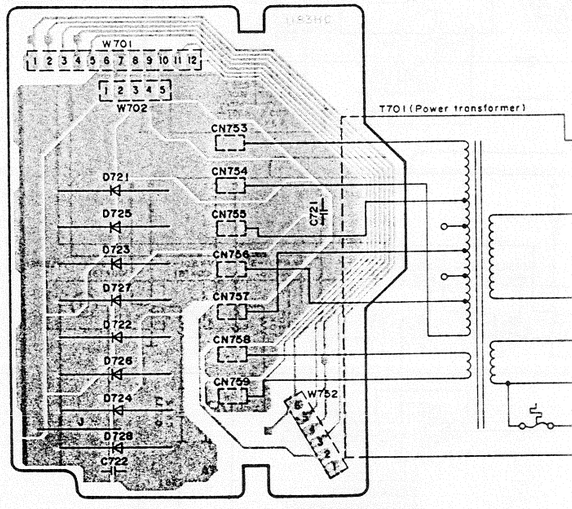


C POWER SWITCH P.C.B. (REPI734B-S···(E,EB) REPI734C-S···(EG) REPI734D-S···(G,GN))

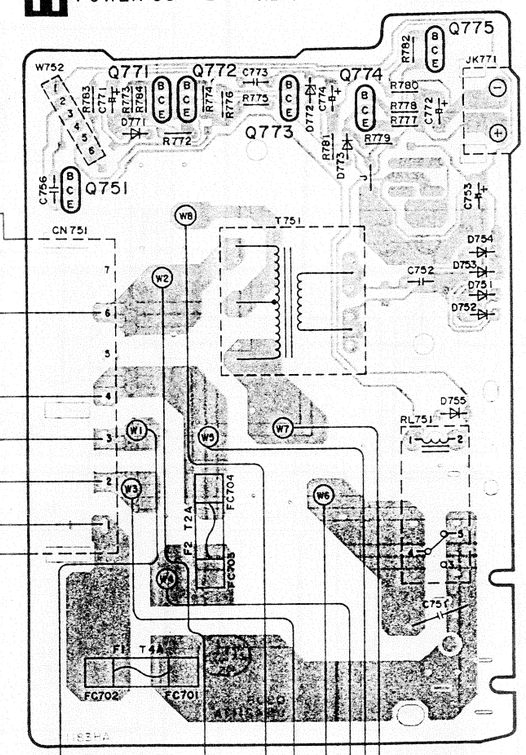


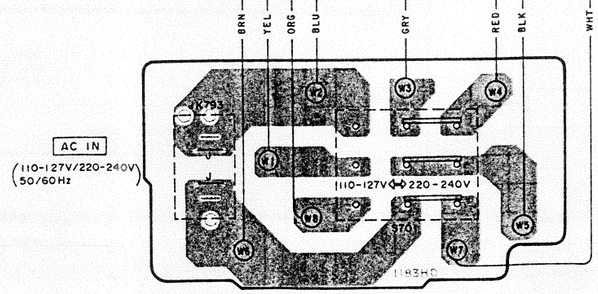
Power Source P.C.B. For (G) area.

I POWER TRANSFORMER P.C.B. (REPI735D-P)



H POWER SUPPLY P.C.B. (REPI735D-P)





J AC IN P.C.B. (REPI735D-P)

12 13 14 15 16 17 18 19

G MAIN P.C.B. (REP1733B-M··· (E,EB,EG) REP1733C-M··· (G,GN))

(A)
(FRONT)
(B)
SPEAKERS
(REAR)
(CENTER)
REMOTE CONTROL OUT
TV MONITOR OUT
VCR1 (OUT)
VCR2 (IN)
VCR1 (IN)
VIDEO
AUDIO
PHONO
GND

IC601 IC602 IC351 IC451 IC1001 IC1002 IC1003

Q708 Q707 Q602 Q601 Q701 Q703 Q705 Q704 Q651 Q352 Q353 Q752 Q354 Q351 Q735 Q734 Q737 Q732 Q736 Q733 Q73 Q552 Q55 Q708 Q100

RL602 RL601 RL603 L601 L602 L651 L652 L751

CN901 CN902 CN903 CN904 CN905 CN702

JK601 JK602 JK603 JK604 JK406 JK35 JK401

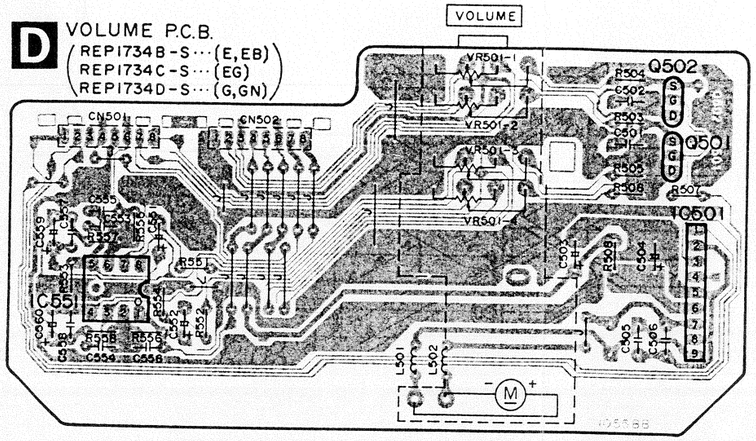
CP701A CP701B CP401 CP402 CP101 CP102

E40 E60

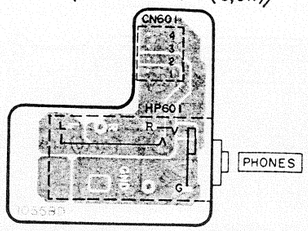
TP2 TP3

(L6) (R6) (C5) (S5) (C4) (S4) (R5) (L5) (C2) (S2) (L1) (R1) (C1) (S1) (DOLBY TEST POINT)

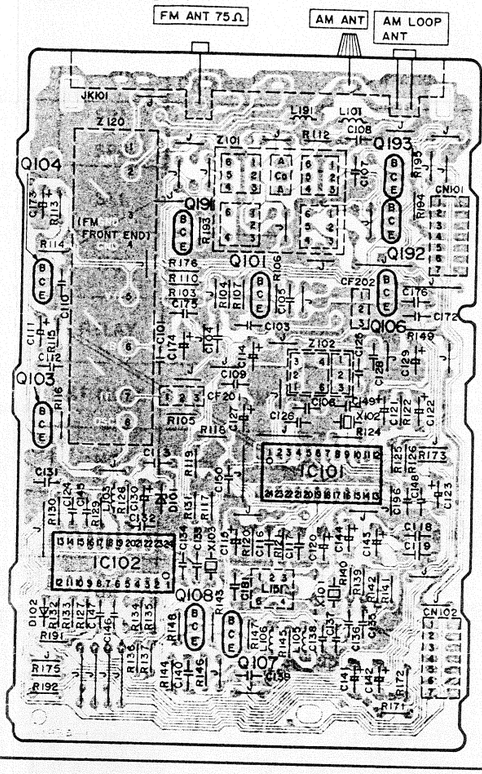
D VOLUME P.C.B.
(REPI734B-S···(E,EB)
REPI734C-S···(EG)
REPI734D-S···(G,GN))



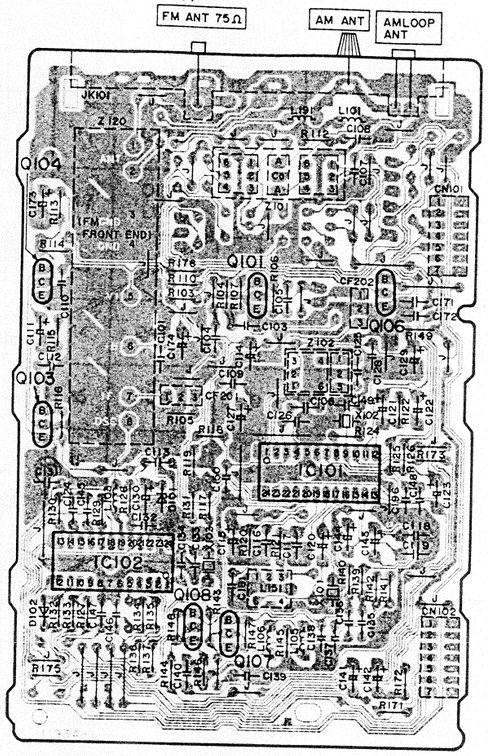
E HEADPHONES JACK P.C.B.
(REPI734B-S···(E,EB)
REPI734C-S···(EG)
REPI734D-S···(G,GN))



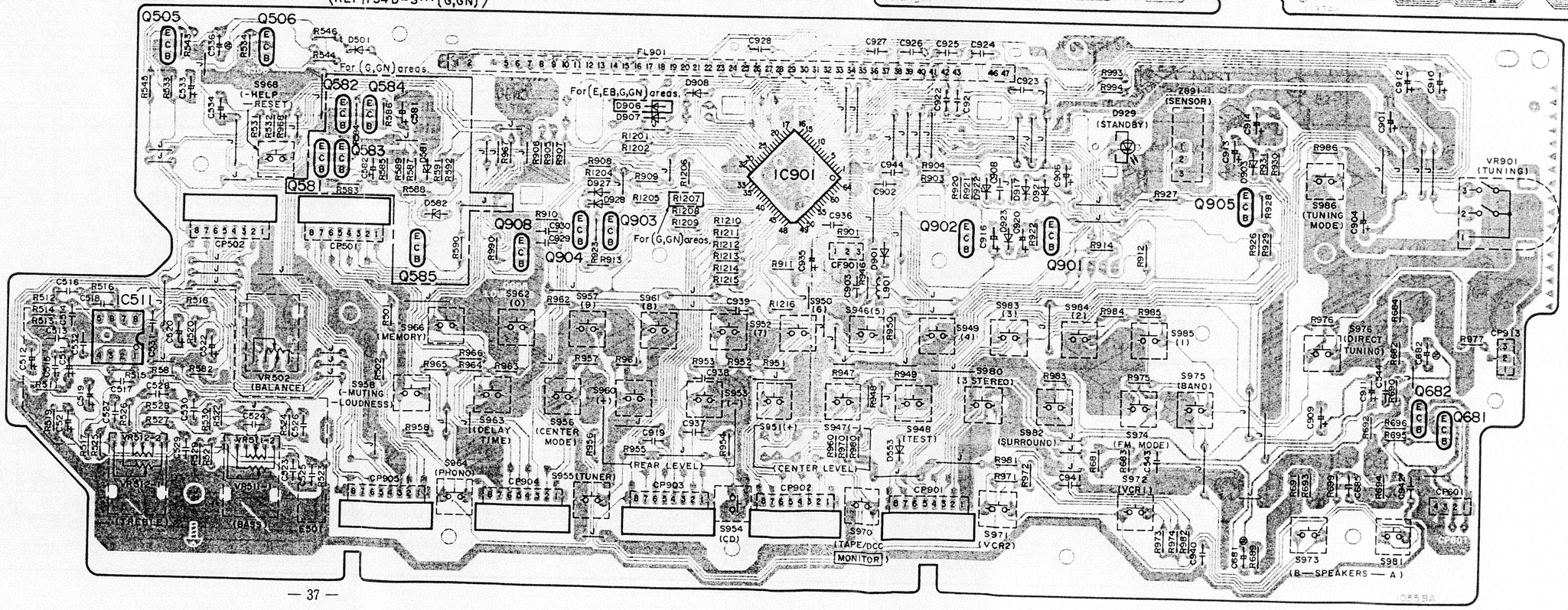
A TUNER P.C.B. For (E, EB, G, GN) areas.
(REPI750B-T)



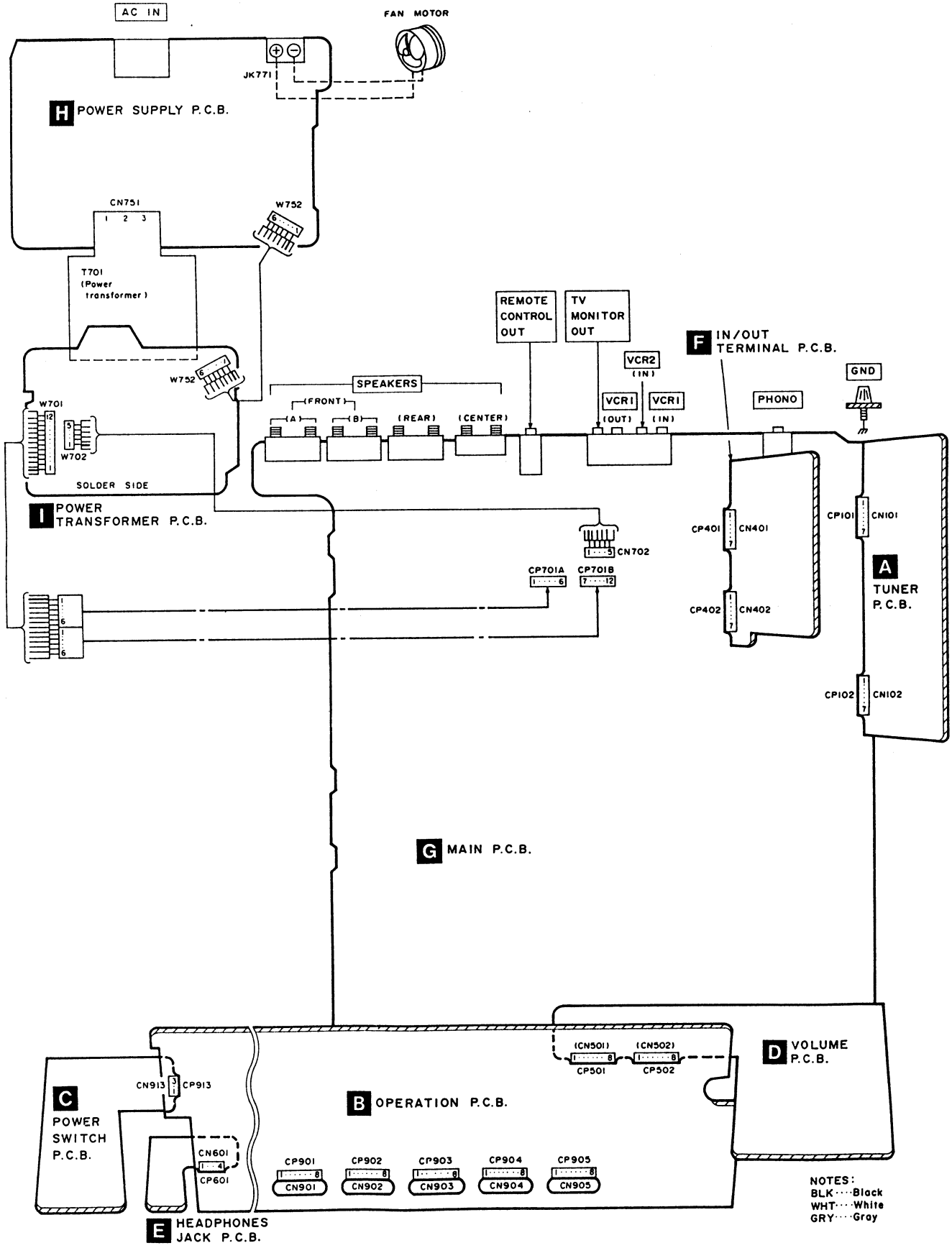
A TUNER P.C.B. For (EG) area.
(REPI750C-T)



B OPERATION P.C.B.
(REPI734B-S···(E,EB)
REPI734C-S···(EG)
REPI734D-S···(G,GN))



■WIRING CONNECTION DIAGRAM



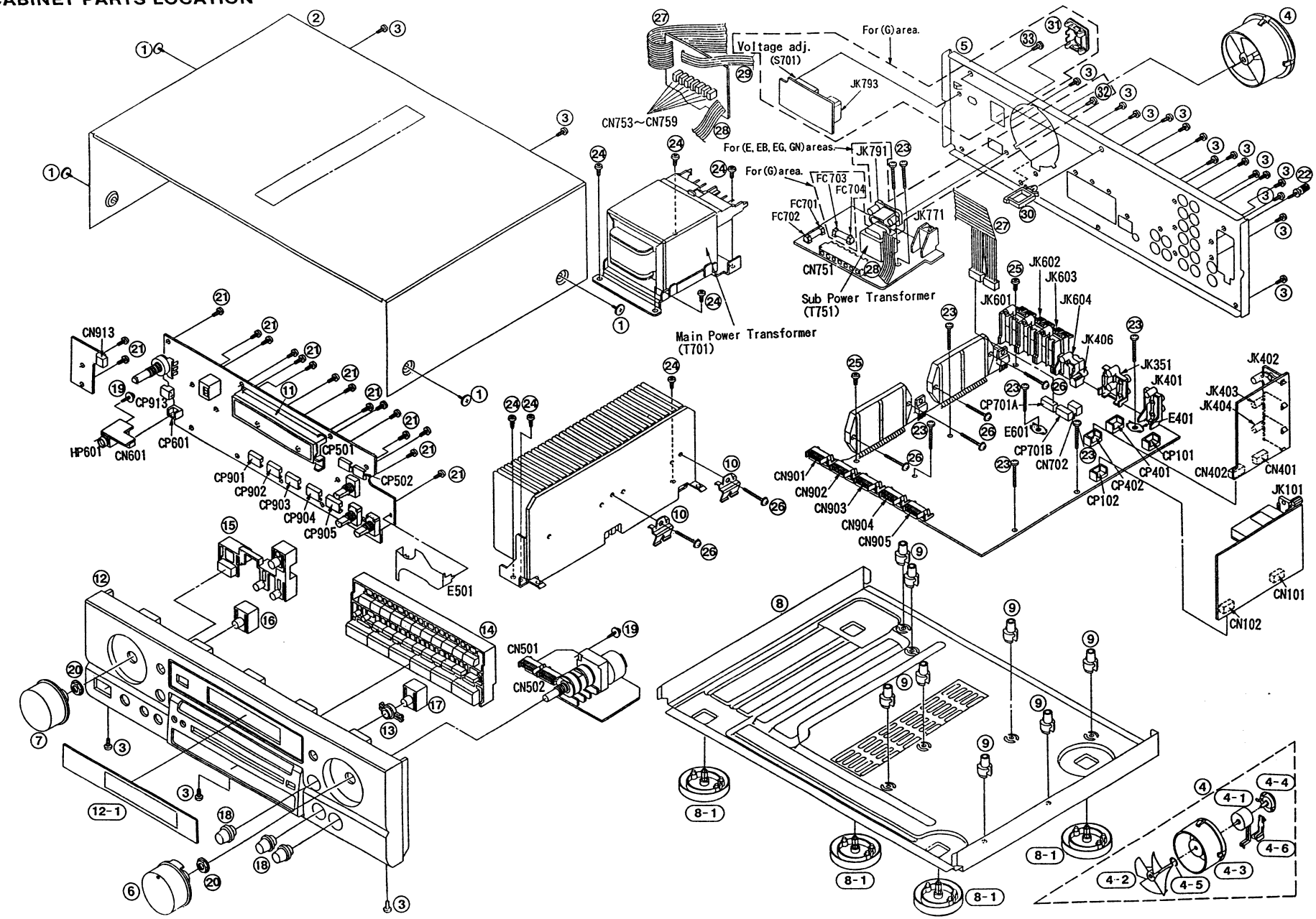
■ TERMINAL FUNCTION OF IC

• IC901 (LC8A012C5524): Microcomputer

Pin No.	Mark	I/O Division	Function
1 • 2	SPA • SPB	O	Speaker select control terminal
3	ST1	O	Level shift control terminal
4	NC	—	Not used, open
5	RELAY	O	Relay control terminal
6	AF MUTE	O	Muting control terminal
7	NC	—	Not used, open
8 ∫ 15	DG1 ∫ DG8	O	Digit signal of FL display
16	S13	O	Segment signal of FL display
17	VDD	I	Power supply terminal
18	VPP	I	Power supply terminal of FL display
19 ∫ 30	S12 ∫ S1	O	Segment signal of FL display
31 • 32	FWD • REV	O	Rotation control terminal of volume motor
33	IN1	—	Not used, connected to resistor
34	FM ST	I	Stereo signal detect terminal
35	SD	I	Received signal detect terminal
36	IFDATAIN	I	Serial data signal
37	LOUDNESS	—	Not used, open
38	ST3	O	Level shift control terminal
39	VIDEO	O	Video selector control terminal
40	CE	O	Chip enable terminal

Pin No.	Mark	I/O Division	Function
41	DATA1	O	Serial data signal
42	OVER LOAD	I	Over load detect terminal
43	CK1	O	Serial clock signal
44	DATA2	O	Serial data signal
45	ST2	O	Level shift control terminal
46	CK2	O	Serial clock signal
47	5–6	O	Remote control terminal
48	SURR. PASS	O	Level shift control terminal
49	NC	—	Test terminal
50	RESET	I	Reset detect terminal
51	XT1	—	Not used, connected to power supply
52	XT2	—	Not used, open
53	VSS	—	GND terminal
54	CF1	I	Crystal oscillator
55	CF2	O	Terminal (6MHz)
56	VDD	I	Power supply terminal
57 ∫ 60	KEY1 ∫ KEY4	I	Key matrix detect terminal
61	STANDBY	I	Power detect terminal
62 • 63	ENCODE A • ENCODE B	I	Not used, connected to power supply
64	REMOCON IN	I	Remote control terminal

■CABINET PARTS LOCATION



■ REPLACEMENT PARTS LIST

Notes: *Important safety notice:
Components identified by △ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RHD30035-K1	SCREW	
2	RKMD041A-K	CABINET	
3	XTBS3+8JFZ1	SCREW	
4	REMD020-1	FAN MOTOR UNIT	
4-1	MDN-4RB4MRC	MOTOR	
4-2	SHE232-1	FAN	
4-3	RMQD209-K	FAN CASE	
4-4	RMQD208-K	FAN CAP	
4-5	SUS271	SPRING	
4-6	RMQD212-K	FAN TERMINAL CAP	
5	RGRD168G-B2	REAR PANEL	(E)
5	RGRD168G-C2	REAR PANEL	(EB)
5	RGRD168G-A	REAR PANEL	(EG)
5	RGRD168H-A	REAR PANEL	(G)
5	RGRD168G-D2	REAR PANEL	(GN)
6	RGWD163-K	VOLUME KNOB	
7	RGWD171-K	TUNING KNOB	
8	RFKJAGX470PK	BOTTOM CHASSIS ASS'Y	
8-1	RKAD053-A	FOOT	
9	RKQD089	P. C. B. SUPPORT	
10	RMCD158	TRANSISTOR HOLDER	
11	RMND205	FL HOLDER	
12	RFKGAGX670EK	FRONT PANEL ASS'Y	(E, EB, EG)
12	RFKGAGX670GK	FRONT PANEL ASS'Y	(G, GN)
12-1	RKWD268D-Q	TRANSPARENT PLATE	
13	RGKD604-N	ORNAMENT BUTTON	
14	RGUD837B-K	SELECTOR BUTTON	
15	RFKNAGX550PA	POWER BUTTON ASS'Y	
16	RFKNAGX550PB	MODE BUTTON ASS'Y	
17	RFKNAGX350PB	MUTING BUTTON ASS'Y	
18	RGWD175-1K	BALANCE/TREBLE/BASS KNOB	
19	RHD26016	SCREW	
20	RHN90001	NUT	
21	XTBS26+8J	SCREW	
22	SNE2123	GND TERMINAL	
23	XTB3+20JFZ	SCREW	
24	XTB3+8JFZ	SCREW	
25	XTWS3+8T	SCREW	
26	XTW3+15T	SCREW	
27	RFKEUG95GAK	CONNECTOR ASS'Y (W701) (12P)	
28	RFKEUG95GBK	FLAT CABLE ASS'Y (W752) (6P)	
29	REZD684	FLAT CABLE (5P)	
30	SHR3814	CLAMPER	
31	SJS9231A	AC INLET COVER	(G)

Ref. No.	Part No.	Part Name & Description	Remarks
32	XTBS3+8JFZ1	SCREW	(E, EB, EG, GN)
33	XTBS3+8JFZ1	SCREW	(G)
		INTEGRATED CIRCUIT(S)	
IC101	LA1832A	FM/AM IF AMP. /AM OSC	
IC102	LC7218	PLL FREQ. SYNTHESIZER	
IC351	MC14052BCP	VIDEO SELECTOR	
IC401	NJU7312AL	INPUT SELECTOR	
IC402	UPC4570C	BUFFER AMP.	
IC451	AN6558-FSG	PHONO EQ AMP.	
IC501	BA6218	MOTOR DRIVE	
IC511	UPC4570C	TONE AMP.	
IC551	UPC4570C	PRE AMP.	
IC601, 602	RSN3306A	POWER AMP.	⚠
IC901	LC8A012C5524	MICROCOMPUTER	
IC1001	LA2785	DOLBY PRO-LOGIC CONTROL	
IC1002	LV1010N	DOLBY PRO-LOGIC DRIVE	
IC1003	M5218AP	BUFFER AMP.	
		TRANSISTOR(S)	
Q101	2SC2787L	TRANSISTOR	
Q103, 104	2SC2785FE	TRANSISTOR	
Q106	UN411FTA	TRANSISTOR	
Q107, 108	2SC3311ARSTA	TRANSISTOR	
Q191-193	2SC3311ARSTA	TRANSISTOR	(E, EB, G, GN)
Q351	2SC3311AIRTA	TRANSISTOR	
Q352, 353	2SA1309AIRTA	TRANSISTOR	
Q354	UN4213	TRANSISTOR	
Q501, 502	2SJ40CDTA	TRANSISTOR	
Q505, 506	2SC3327-A	TRANSISTOR	
Q551, 552	2SC3311AIRTA	TRANSISTOR	
Q581, 582	2SA1309AIRTA	TRANSISTOR	(G)
Q583, 584	2SC3327-A	TRANSISTOR	(G)
Q585	2SA1309AIRTA	TRANSISTOR	(G)
Q601, 602	2SA1309AIRTA	TRANSISTOR	
Q651	2SA1309AIRTA	TRANSISTOR	
Q681, 682	2SC3327-A	TRANSISTOR	
Q701	2SD2374PQAU	TRANSISTOR	⚠
Q703-705	2SC3311AIRTA	TRANSISTOR	⚠
Q706	2SC3940AQSTA	TRANSISTOR	⚠
Q707	2SB621AQSTA	TRANSISTOR	⚠
Q708	2SB1548PQAU	TRANSISTOR	⚠
Q731	2SB1357DEFTA	TRANSISTOR	⚠
Q732, 733	2SC3311AIRTA	TRANSISTOR	⚠
Q734	2SD2037DEFTA	TRANSISTOR	⚠

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Ref. No.	Part No.	Part Name & Description	Remarks
Q735	2SA992EFTA	TRANSISTOR	⚠
Q736	UN4213	TRANSISTOR	
Q737	2SA992EFTA	TRANSISTOR	⚠
Q751	UN421FTA	TRANSISTOR	
Q752	2SC3940AQSTA	TRANSISTOR	⚠
Q771	2SA1309AIRTA	TRANSISTOR	
Q772	2SA1309A-R	TRANSISTOR	
Q773	2SB621AQSTA	TRANSISTOR	⚠
Q774, 775	2SA1309AIRTA	TRANSISTOR	
Q901	UN4214TA	TRANSISTOR	
Q902	2SA1309AIRTA	TRANSISTOR	⚠
Q903	UN4113TA	TRANSISTOR	
Q904	UN4214TA	TRANSISTOR	
Q905	2SA1309AIRTA	TRANSISTOR	
Q908	UN4211	TRANSISTOR	
Q1001	2SC3940AQSTA	TRANSISTOR	⚠
		DIODE(S)	
D101	MA4051MTA	DIODE	⚠
D102	MA165	DIODE	
D351, 352	MA4056MTA	DIODE	⚠
D353	MA165	DIODE	
D401	MA4075MTA	DIODE	⚠
D501	MA165	DIODE	
D553	MA165	DIODE	
D581, 582	MA4030MTA	DIODE	(G)
D601, 602	SB3606501T	DIODE	
D603	MA700	DIODE	
D604-606	MA165	DIODE	
D608	MA165	DIODE	
D651, 652	SB3606501T	DIODE	
D654, 655	MA165	DIODE	
D656	MA4047MTA	DIODE	
D657	MA165	DIODE	
D701-704	P300D5002T	DIODE	⚠
D705, 706	MA4062MTA	DIODE	⚠
D707	MA4220MTA	DIODE	⚠
D708	MA4150M	DIODE	⚠
D721-724	P300DLF	DIODE	⚠
D725-728	P300DLF	DIODE	(E, EB, EG, G)⚠
D731	MA4220MTA	DIODE	(E, EB, EG)⚠
D731	MA4270	DIODE	(G, GN)⚠
D732, 733	MA165	DIODE	
D751-754	1SR35200TB	DIODE	⚠
D755	MA165	DIODE	
D756	MA4068M	DIODE	⚠
D771	MA165	DIODE	
D772	MA4068M	DIODE	⚠
D773	MA165	DIODE	
D901	1SS291TA	DIODE	
D903	MA4056MTA	DIODE	⚠

Ref. No.	Part No.	Part Name & Description	Remarks
D906	MA165	DIODE	(E, EB, G, GN)
D907, 908	MA165	DIODE	
D917	1SS291TA	DIODE	
D921	MA165	DIODE	
D922	MA4039MTA	DIODE	⚠
D923	MA165	DIODE	
D927, 928	MA165	DIODE	
D929	LN018304P	L. E. D.	
D1001	MA4100MTA	DIODE	⚠
		VARIABLE RESISTOR(S)	
VR501	EUVMK3002B15	VOLUME CONTROL	
VR502	EVJ02SFA5G15	BALANCE CONTROL	
VR511, 512	EVJYA1F02C15	TONE CONTROL	
VR901	EVQWP0F2024B	TUNING CONTROL	
		COIL(S)	
L101	ELESNR68MA	COIL	(E, EB, G, GN)
L101	ELESN1R0MA	COIL	(EG)
L103	ELEXTR47MA9	COIL	
L105, 106	RLQZB822KT-D	COIL	
L151	SLM1B10M-1M	COIL	
L191	ELESNR68MA	COIL	(E, EB, G, GN)
L191	ELESNR56MA	COIL	(EG)
L501, 502	RLQZP1R0KT-Y	COIL	
L601, 602	RLQYR73M	COIL	
L651, 652	RLQYR73M	COIL	
L701	SLQZ650MH49	COIL	(E, EB, EG, GN)⚠
L751	ELEPK101KA	COIL	
L901	RLQZP101KT-Y	COIL	
L1051	ELEPK101KA	COIL	
		TRANSFORMER(S)	
T701	RTP1P5E011-V	POWER TRANSFORMER(MAIN)	(E, EB, EG)⚠
T701	RTP1P5E012-V	POWER TRANSFORMER(MAIN)	(G)⚠
T701	RTP1P5E013-V	POWER TRANSFORMER(MAIN)	(GN)⚠
T751	RTP115E003-V	POWER TRANSFORMER(SUB)	(E, EB, EG, GN)⚠
T751	RTP115E005-V	POWER TRANSFORMER(SUB)	(G)⚠
		COMPONENT COMBINATION(S)	
Z101	RLA6Z005M-T	COMPONENT COMBINATION	(E, EB, G, GN)
Z101	RLA2Z002M-T	COMPONENT COMBINATION	(EG)
Z102	RL12Z006M-T	COMPONENT COMBINATION	
Z891	RCDHC-278N	REMOTE SENSOR	
		FILTER(S) AND OSCILLATOR(S)	
CF201, 202	RLFFETNGD01L	FILTER	

Ref. No.	Part No.	Part Name & Description	Remarks
CF901	EF0EC6004T4	OSCILLATOR(6MHz)	
CF1051	EF0EC8004T4	OSCILLATOR(8MHz)	
X101	RSXZ456KM07M	OSCILLATOR(456KHz)	
X102	RLFDGTD011	OSCILLATOR(10.65MHz)	
X103	SVQ419U722-S	OSCILLATOR (7.2MHz)	
		DISPLAY TUBE(S)	
FL901	RSL0138-F	DISPLAY TUBE	
		FM FRONT END PACK ASS'Y(S)	
Z120	ENV17290G1R	FM FRONT END	
		FUSE(S)	
F1	XBA2C20TB0	FUSE, 250V, 2A	(E, EB, EG, GN)⚠
F1	XBA2C40TB0	FUSE, 250V, 4A	(G)⚠
F2	XBA2C20TB0	FUSE, 250V, 2A	(G)⚠
		SWITCH(ES)	
S701	ESD26840A	VOLTAGE SELECTOR	(G)⚠
S946	EVQ21405R	NUMERIC 5	
S947	EVQ21405R	CENTER LEVEL(-)	
S948	EVQ21405R	TEST	
S949	EVQ21405R	NUMERIC 4	
S950	EVQ21405R	NUMERIC 6	
S951	EVQ21405R	CENTER LEVEL(+)	
S952	EVQ21405R	NUMERIC 7	
S953	EVQ21405R	REAR LEVEL(-)	
S954	EVQ21405R	CD	
S955	EVQ21405R	TUNER	
S956	EVQ21405R	CENTER MODE	
S957	EVQ21405R	NUMERIC 9	
S958	EVQ21405R	MUTING/LOUDNESS	
S960	EVQ21405R	REAR LEVEL(+)	
S961	EVQ21405R	NUMERIC 8	
S962	EVQ21405R	NUMERIC 0	
S963	EVQ21405R	DELAY TIME	
S964	EVQ21405R	PHONO	
S966	EVQ21405R	MEMORY	
S968	EVQ21405R	HELP/RESET	
S970	EVQ21405R	TAPE/DCC MONITOR	
S971	EVQ21405R	VCR2	
S972	EVQ21405R	VCR1	
S973	EVQ21405R	SPEAKER B	
S974	EVQ21405R	FM MODE	
S975	EVQ21405R	BAND	
S976	EVQ21405R	DIRECT TUNING	
S978	EVQ21405R	POWER	
S980	EVQ21405R	3 STEREO	

Ref. No.	Part No.	Part Name & Description	Remarks
S981	EVQ21405R	SPEAKER A	
S982	EVQ21405R	SURROUND	
S983	EVQ21405R	NUMERIC 3	
S984	EVQ21405R	NUMERIC 2	
S985	EVQ21405R	NUMERIC 1	
S986	EVQ21405R	TUNING MODE	
		RELAY(S)	
RL601-603	RSY0013M-0	RELAY	⚠
RL751	RSY0019-0	RELAY	⚠
		CONNECTOR(S) AND SOCKET(S)	
CN101, 102	RJU057W007	SOCKET(7P)	
CN401, 402	RJU057W007	SOCKET(7P)	
CN501, 502	RJU003K008M1	SOCKET(8P)	
CN601	RJU057W004	SOCKET(4P)	
CN702	RJS1A6605	CONNECTOR(5P)	
CN751	SJS305-1	CONNECTOR(3P)	(E, EB, EG, GN)
CN751	SJS702-1	CONNECTOR(7P)	(G)
CN753-759	RJS1A1101T1	CONNECTOR(1P)	
CN901-905	RJU003K008M1	SOCKET(8P)	
CN913	SJS50382JQH	SOCKET(3P)	
CP101, 102	RJT057W007-1	CONNECTOR(7P)	
CP401, 402	RJT057W007-1	CONNECTOR(7P)	
CP501, 502	RJT003K008-1	CONNECTOR(8P)	
CP601	RJT057W004-1	CONNECTOR(4P)	
CP701A	RJT039W06T	CONNECTOR(6P)	
CP701B	RJT039W06T	CONNECTOR(6P)	
CP901-905	RJT003K008-1	CONNECTOR(8P)	
CP913	SJT30345JQ	CONNECTOR(3P)	
		JACK(S)	
JK101	RJH4202M	ANT TERMINAL	
JK351	SJF3069-3N	TV MONITOR OUT/VIDEO	
JK401	SJF3068-7N	PHONO TERMINAL	
JK402	SJF3069N	CD IN/REC OUT TERMINAL	
JK403	SJF3069N	PLAY IN/VCR2 IN TERMINAL	
JK404	SJF3069N	VCR1 OUT/VCR1 IN TERMINAL	
JK406	RJJ33TR01	REMOTE CONTROL OUT TERMINAL	
JK601	RJR0054	FRONT SPEAKER(A) TERMINAL	
JK602	RJR0054	FRONT SPEAKER(B) TERMINAL	
JK603	RJR0054	REAR SPEAKER TERMINAL	
JK604	SJF5201M-1	CENTER SPEAKER TERMINAL	
JK771	RJS1A7402-1	FAN MOTOR TERMINAL	
JK791	SJS9236	AC INLET	(E, EB, EG)⚠
JK791	SJSD16	AC INLET	(GN)⚠
JK793	SJS9231-1B	AC INLET	(G)⚠
HP601	RJJ63TA01	HEADPHONES JACK	

Ref. No.	Part No.	Part Name & Description	Remarks
		GND PLATE(S)	
E401	SNE1004-2	GND PLATE	
E501	RSC0370	GND PLATE	
E601	SNE1004-2	GND PLATE	
		FUSE HOLDER(S)	
FC701, 702	EYF52BC	FUSE HOLDER	
FC703, 704	EYF52BC	FUSE HOLDER	(G)

■ RESISTORS AND CAPACITORS

Notes : • Capacity values are in microfarads (uF) unless specified otherwise, P = Pico-farads (pF) F = Farads (F)
• Resistance values are in ohms, unless specified otherwise, 1K = 1,000 (OHM), 1M = 1,000k (OHM)

Ref. No.	Part No.	Values & Remarks
		RESISTORS
R103	ERDS2TJ101	1/4W 100
R104	ERDS2TJ102	1/4W 1K
R105	ERDS2TJ471	1/4W 470
R106	ERDS2TJ224T	1/4W 220K
R107	ERDS2TJ471	1/4W 470
R110	ERDS2TJ102	1/4W 1K
R112	ERDS2TJ104	1/4W 100K
R113	ERDS2TJ103	1/4W 10K
R114	ERDS2TJ562	1/4W 5.6K
R115	ERDS2TJ561	1/4W 560
R116	ERDS2TJ102	1/4W 1K
R117	ERDS2TJ473	1/4W 47K
R118	ERDS2TJ562	1/4W 5.6K
R119	ERDS2TJ183T	1/4W 18K
R120	ERDS2TJ473	1/4W 47K
R121	ERDS2TJ332	1/4W 3.3K
R122	ERDS2TJ272T	1/4W 2.7K
R124	ERDS2TJ271	1/4W 270
R125, 126	ERDS2TJ472	1/4W 4.7K
R127	ERDS2TJ103	1/4W 10K
R128	ERDS2TJ820	1/4W 82
R129	ERDS2TJ473	1/4W 47K
R130, 131	ERDS2TJ102	1/4W 1K
R132	ERDS2TJ103	1/4W 10K
R133-137	ERDS2TJ102	1/4W 1K

Ref. No.	Part No.	Values & Remarks
R139, 140	ERDS2TJ272T	1/4W 2.7K
R141, 142	ERDS2TJ102	1/4W 1K
R143, 144	ERDS2TJ222	1/4W 2.2K
R145, 146	ERDS2TJ102	1/4W 1K E, EB, G, GN
R145, 146	ERDS2TJ561	1/4W 560 EG
R147, 148	ERDS2TJ474	1/4W 470K
R149	ERDS2TJ680T	1/4W 68
R171, 172	ERDS2TJ102	1/4W 1K
R173	ERDS2TJ471	1/4W 470
R175	ERDS2TJ102	1/4W 1K
R176	ERDS2TJ391	1/4W 390
R191	ERDS2TJ103	1/4W 10K E, EB, G, GN
R192	ERDS2TJ122	1/4W 1.2K E, EB, G, GN
R193	ERDS2TJ182	1/4W 1.8K E, EB, G, GN
R194	ERDS2TJ122	1/4W 1.2K E, EB, G, GN
R195	ERDS2TJ222	1/4W 2.2K E, EB, G, GN
R351, 352	ERDS2TJ471	1/4W 470
R354	ERDS2TJ472	1/4W 4.7K
R355	ERDS2TJ470	1/4W 47
R356	ERDS2TJ152	1/4W 1.5K
R357	ERDS2TJ470	1/4W 47
R358	ERDS2TJ471	1/4W 470
R359, 360	ERDS2TJ470	1/4W 47
R361	ERDS2TJ471	1/4W 470
R362	ERDS2TJ470	1/4W 47
R363	ERDS2TJ332	1/4W 3.3K
R364	ERDS2TJ561	1/4W 560
R365	ERDS2TJ332	1/4W 3.3K

Ref. No.	Part No.	Values & Remarks
R366	ERDS2TJ104	1/4W 100K
R369, 370	ERDS1FVJ271T	1/2W 270 ⚠
R401, 402	ERDS2TJ102	1/4W 1K
R405-416	ERDS2TJ102	1/4W 1K
R417, 418	ERDS2TJ473	1/4W 47K
R419-422	ERDS2TJ104	1/4W 100K
R423, 424	ERDS2TJ102	1/4W 1K
R425-427	ERDS2TJ103	1/4W 10K
R440	ERDS1FVJ820T	1/2W 82 ⚠
R441, 442	ERDS2TJ473	1/4W 47K
R443	ERDS2TJ330	1/4W 33
R451, 452	ERDS2TJ224T	1/4W 220K
R453, 454	ERDS2TJ391	1/4W 390
R455, 456	ERDS2TJ563	1/4W 56K
R457, 458	ERDS2TJ271	1/4W 270
R459, 460	ERDS2TJ680T	1/4W 68
R461, 462	ERDS2TJ184T	1/4W 180K
R463, 464	ERDS2TJ123	1/4W 12K
R465, 466	ERDS2TJ563	1/4W 56K
R467-470	ERDS2TJ102	1/4W 1K
R501, 502	ERDS2TJ222	1/4W 2.2K
R503-506	ERDS2TJ103	1/4W 10K
R507	ERDS2TJ153	1/4W 15K
R508	ERDS1FVJ2R2T	1/2W 2.2 ⚠
R511, 512	ERDS2TJ471	1/4W 470
R513-516	ERDS2TJ474	1/4W 470K
R517, 518	ERDS2TJ222	1/4W 2.2K
R519, 520	ERDS2TJ152	1/4W 1.5K

Ref. No.	Part No.	Values & Remarks
R521, 522	ERDS2TJ223	1/4W 22K
R523, 524	ERDS2TJ392T	1/4W 3.9K
R525, 526	ERDS2TJ222	1/4W 2.2K
R527, 528	ERDS2TJ122	1/4W 1.2K
R529, 530	ERDS2TJ273	1/4W 27K
R531, 532	ERDS2TJ332	1/4W 3.3K E, EB, EG, GN
R531, 532	ERDS2TJ222	1/4W 2.2K G
R533, 534	ERDS2TJ222	1/4W 2.2K E, EB, EG, GN
R533, 534	ERDS2TJ272	1/4W 2.7K G
R543, 544	ERDS2TJ102	1/4W 1K
R545	ERDS2TJ824	1/4W 820K
R546	ERDS2TJ332	1/4W 3.3K
R551, 552	ERDS2TJ102	1/4W 1K
R553, 554	ERDS2TJ104	1/4W 100K
R555	ERDS2TJ332	1/4W 3.3K
R556	ERDS2TJ393	1/4W 39K
R557	ERDS2TJ471	1/4W 470
R558	ERDS2TJ821	1/4W 820
R559, 560	ERDS2TJ104	1/4W 100K
R561	ERDS2TJ332	1/4W 3.3K
R562	ERDS2TJ272T	1/4W 2.7K
R564-566	ERDS2TJ102	1/4W 1K
R567	ERDS2TJ474	1/4W 470K
R570	ERDS2TJ103	1/4W 10K
R571	ERDS2TJ332	1/4W 3.3K
R572	ERDS2TJ471	1/4W 470
R575	ERDS2TJ102	1/4W 1K
R581, 582	ERDS2TJ471	1/4W 470
R583-586	ERDS2TJ102	1/4W 1K G
R587, 588	ERDS2TJ222	1/4W 2.2K G
R589	ERDS2TJ122	1/4W 1.2K G
R590	ERDS2TJ472	1/4W 4.7K G
R591, 592	ERDS2TJ222	1/4W 2.2K G
R601, 602	ERDS2TJ102	1/4W 1K
R603, 604	ERDS2TJ563	1/4W 56K
R605, 606	ERDS2TJ182	1/4W 1.8K
R607, 608	ERDS2TJ563	1/4W 56K
R609, 610	ERDS2TJ470	1/4W 47
R611, 612	ERDS1FVJ100T	1/2W 10 ⚠
R613, 614	ERDS2TJ102	1/4W 1K
R615	ERDS2TJ184T	1/4W 180K
R616	ERDS2TJ154	1/4W 150K
R617, 618	ERDS2TJ473	1/4W 47K
R619	ERDS2TJ223	1/4W 22K
R620	ERD25FJ220	1/4W 22 ⚠
R621	ERDS2TJ183T	1/4W 18K
R622	ERDS2TJ124T	1/4W 120K
R623	ERDS2TJ684	1/4W 680K
R624, 625	ERDS2TJ154	1/4W 150K E, EB, EG
R624, 625	ERDS2TJ563	1/4W 56K G, GN
R628-630	ERDS2TJ223	1/4W 22K
R631, 632	ERDS2TJ103	1/4W 10K

Ref. No.	Part No.	Values & Remarks
R633, 634	ERDS2TJ102	1/4W 1K
R635, 636	ERDS1FVJ271T	1/2W 270 ⚠
R637-640	ERG1SJ101E	1W 100
R641	ERDS2TJ684	1/4W 680K
R642	ERDS2TJ472	1/4W 4.7K
R647, 648	ERDS2TJ221	1/4W 220
R651, 652	ERDS2TJ102	1/4W 1K
R653, 654	ERDS2TJ563	1/4W 56K
R655, 656	ERDS2TJ182	1/4W 1.8K
R657, 658	ERDS2TJ563	1/4W 56K
R659, 660	ERDS2TJ470	1/4W 47
R661, 662	ERDS1FVJ100T	1/2W 10 ⚠
R663, 664	ERDS2TJ102	1/4W 1K
R665	ERDS2TJ154	1/4W 150K
R666	ERDS2TJ184T	1/4W 180K
R667, 668	ERDS2TJ473	1/4W 47K
R669	ERDS2TJ223	1/4W 22K
R670	ERD25FJ220	1/4W 22 ⚠
R671	ERDS2TJ183T	1/4W 18K
R672	ERDS2TJ124T	1/4W 120K
R673	ERDS2TJ684	1/4W 680K
R674, 675	ERDS2TJ154	1/4W 150K E, EB, EG
R674, 675	ERDS2TJ563	1/4W 56K G, GN
R676	ERDS2TJ223	1/4W 22K
R677	ERDS2TJ103	1/4W 10K
R678	ERDS1FVJ271T	1/2W 270 ⚠
R681-684	ERDS1FVJ560T	1/2W 56 ⚠
R689-694	ERDS2TJ270T	1/4W 27
R695, 696	ERDS2TJ102	1/4W 1K
R697, 698	ERDS2TJ221	1/4W 220
R699	ERDS2TJ332	1/4W 3.3K
R703, 704	ERDS1FVJ3R9T	1/2W 3.9 ⚠
R705	ERDS2TJ472	1/4W 4.7K
R706	ERDS2TJ102	1/4W 1K
R709	ERD25FVJ221T	1/4W 220 ⚠
R712	ERDS2TJ472	1/4W 4.7K
R713, 714	ERDS2TJ1R5T	1/4W 1.5
R715	ERDS2TJ752T	1/4W 7.5K
R716	ERDS2TJ682T	1/4W 6.8K
R717	ERDS1FVJ220T	1/2W 22 ⚠
R718	ERDS2TJ182	1/4W 1.8K
R721	ERDS1FVJ4R7T	1/2W 4.7 ⚠
R722	ERD25FJ101	1/4W 100 ⚠
R723	ERDS2TJ222	1/4W 2.2K
R724	ERDS1FVJ6R8T	1/2W 6.8 ⚠
R725	ERDS2TJ152	1/4W 1.5K
R727	ERDS1FVJ3R3T	1/2W 3.3 ⚠
R731	ERD25FVJ180T	1/4W 18 ⚠
R732	ERDS2TJ123	1/4W 12K E, EB, EG
R732	ERDS2TJ183T	1/4W 18K G, GN
R733	ERDS2TJ682T	1/4W 6.8K
R734	ERDS2TJ103	1/4W 10K E, EB, EG

Ref. No.	Part No.	Values & Remarks
R734	ERDS2TJ123	1/4W 12K G, GN
R735	ERDS2TJ562	1/4W 5.6K
R736	ERDS2TJ273	1/4W 27K E, EB, EG
R736	ERDS2TJ333	1/4W 33K G, GN
R737, 738	ERDS1FVJ561T	1/2W 560 ⚠
R739	ERD25FVJ180T	1/4W 18 ⚠
R740	ERDS2TJ393	1/4W 39K
R742	ERDS2TJ393	1/4W 39K
R743	ERDS2TJ183T	1/4W 18K E, EB, EG
R743	ERDS2TJ223	1/4W 22K G, GN
R744, 745	ERDS1FVJ561T	1/2W 560 ⚠
R754	ERDS2TJ102	1/4W 1K
R772	ERDS2TJ104	1/4W 100K
R773	ERDS2TJ103	1/4W 10K
R774	ERDS2TJ223	1/4W 22K
R775	ERDS2TJ332	1/4W 3.3K
R776	ERDS1FVJ220T	1/2W 22 ⚠
R777	ERDS2TJ220T	1/4W 22
R778	ERDS2TJ222	1/4W 2.2K
R779	ERDS2TJ103	1/4W 10K
R780, 781	ERDS2TJ333	1/4W 33K
R782	ERDS2TJ153	1/4W 15K
R783	ERDS2TJ103	1/4W 10K
R784	ERDS2TJ335T	1/4W 3.3M
R791-796	ERDS2TJ223	1/4W 22K
R797	ERDS2TJ682T	1/4W 6.8K
R901	ERDS2TJ102	1/4W 1K
R903-911	ERDS2TJ104	1/4W 100K
R912	ERDS2TJ102	1/4W 1K
R913, 914	ERDS2TJ104	1/4W 100K
R920	ERDS2TJ271	1/4W 270
R921	ERDS2EJ121	1/4W 120
R922	ERDS2TJ472	1/4W 4.7K
R923	ERDS2TJ102	1/4W 1K
R926	ERDS2TJ122	1/4W 1.2K
R927	ERDS2TJ181T	1/4W 180
R928	ERDS2TJ222	1/4W 2.2K
R929	ERDS2TJ562	1/4W 5.6K
R930, 931	ERDS2TJ101	1/4W 100
R946-949	ERDS2TJ103	1/4W 10K
R950	ERDS2TJ102	1/4W 1K
R951	ERDS2TJ122	1/4W 1.2K
R952	ERDS2TJ152	1/4W 1.5K
R953	ERDS2TJ182	1/4W 1.8K
R954	ERDS2TJ222	1/4W 2.2K
R955	ERDS2TJ332	1/4W 3.3K
R956	ERDS2TJ472	1/4W 4.7K
R957	ERDS2TJ682T	1/4W 6.8K
R958	ERDS2TJ123	1/4W 12K
R960	ERDS2TJ102	1/4W 1K
R961	ERDS2TJ122	1/4W 1.2K
R962	ERDS2TJ152	1/4W 1.5K

Ref. No.	Part No.	Values & Remarks
R963	ERDS2TJ182	1/4W 1.8K
R964	ERDS2TJ222	1/4W 2.2K
R965	ERDS2TJ332	1/4W 3.3K
R966	ERDS2TJ472	1/4W 4.7K
R967	ERDS2TJ682T	1/4W 6.8K
R968	ERDS2TJ123	1/4W 12K
R970	ERDS2TJ102	1/4W 1K
R971	ERDS2TJ122	1/4W 1.2K
R972	ERDS2TJ152	1/4W 1.5K
R973	ERDS2TJ182	1/4W 1.8K
R974	ERDS2TJ222	1/4W 2.2K
R975	ERDS2TJ332	1/4W 3.3K
R976	ERDS2TJ472	1/4W 4.7K
R977	ERDS2TJ682T	1/4W 6.8K
R978	ERDS2TJ123	1/4W 12K
R980	ERDS2TJ102	1/4W 1K
R981	ERDS2TJ122	1/4W 1.2K
R982	ERDS2TJ152	1/4W 1.5K
R983	ERDS2TJ182	1/4W 1.8K
R984	ERDS2TJ222	1/4W 2.2K
R985	ERDS2TJ332	1/4W 3.3K
R986	ERDS2TJ472	1/4W 4.7K
R990	ERDS2TJ153	1/4W 15K
R991	ERDS2TJ103	1/4W 10K
R993, 994	ERDS2TJ102	1/4W 1K
R1001, 1002	ERDS2TJ223	1/4W 22K
R1003, 1004	ERDS2TJ102	1/4W 1K
R1005	ERDS2TJ203T	1/4W 20K
R1007, 1008	ERDS2TJ473	1/4W 47K
R1009-1011	ERDS2TJ332	1/4W 3.3K
R1012	ERDS2TJ102	1/4W 1K
R1051	ERDS2TJ393	1/4W 39K
R1052	ERDS2TJ105T	1/4W 1M
R1053	ERDS2TJ102	1/4W 1K
R1055, 1056	ERDS2TJ473	1/4W 47K
R1061	ERDS2TJ222	1/4W 2.2K
R1071, 1072	ERDS2TJ222	1/4W 2.2K
R1073, 1074	ERDS2TJ392T	1/4W 3.9K E, EB, EG
R1073, 1074	ERDS2TJ682T	1/4W 6.8K G, GN
R1075, 1076	ERDS2TJ473	1/4W 47K
R1201, 1202	ERDS2TJ102	1/4W 1K
R1204-1206	ERDS2TJ102	1/4W 1K
R1207	ERDS2TJ273	1/4W 27K G, GN
R1208-1216	ERDS2TJ102	1/4W 1K
		CAPACITORS
C101	ECBT1C103NS5	16V 0.01U
C103	ECBT1C103NS5	16V 0.01U
C104	ECBT1H102KB5	50V 1000P
C105	ECBT1H470J5	50V 47P
C106	ECBT1C103NS5	16V 0.01U

Ref. No.	Part No.	Values & Remarks
C107	ECBT1H473ZF5	50V 0.047U
C108	ECBT1H100JC5	50V 10P E, EB, G, GN
C108	ECBT1H8R2KC5	50V 8.2P EG
C109, 110	ECBT1C103NS5	16V 0.01U
C111	ECEA1EKA4R7B	25V 4.7U
C112	ECBT1C103NS5	16V 0.01U
C113	ECBT1H102KB5	50V 1000P
C114	ECEA1HKA3R3B	50V 3.3U
C115	ECEA1EKA4R7B	25V 4.7U
C116	ECBT1C822MS5	16V 8200P
C117	ECQB1H471JF3	50V 470P
C118, 119	ECQB1H103JF3	50V 0.01U
C120, 121	ECEA1HKA010B	50V 1U
C122	ECEA1HKA2R2B	50V 2.2U
C123	ECEA1HKA010B	50V 1U
C124	ECBT1H102KB5	50V 1000P
C125	ECBT1H150JC5	50V 15P
C126	ECBT1H1042F5	50V 0.1U
C127	ECEA1CKA220B	16V 22U
C128	ECBT1C103NS5	16V 0.01U
C129, 130	ECEA0JKA101B	6.3V 100U
C131	ECBT1C103NS5	16V 0.01U
C132	ECBT1H102KB5	50V 1000P
C133	ECBT1H150JC5	50V 15P
C134	ECBT1H180JC5	50V 18P
C135, 136	ECBT1C103KS5	16V 0.01U
C137, 138	ECBT1H561KB5	50V 560P
C139, 140	ECQB1H682JF3	50V 6800P
C141-144	ECEA1HKA010B	50V 1U
C145	ECBT1H220JC5	50V 22P
C146	ECBT1H331KB5	50V 330P
C147	ECBT1H102KB5	50V 1000P
C148, 149	ECBT1C103NS5	16V 0.01U
C150	ECBT1H104ZF5	50V 0.1U
C172	ECBT1H331KB5	50V 330P
C173	ECEA1CKA220B	16V 22U
C174	ECEA1CKA101B	16V 100U
C175, 176	ECBT1C103NS5	16V 0.01U
C181	ECBT1H471KB5	50V 470P
C196	ECBT1H102KB5	50V 1000P
C351, 352	ECEA0JKA101B	6.3V 100U
C353	ECEA1CKA100B	16V 10U
C401, 402	ECEA1VKA4R7B	35V 4.7U
C403, 404	ECBT1E1032F	25V 0.01U
C405, 406	ECBT1H101KB5	50V 100P
C409, 410	ECEA1CKA220B	16V 22U
C411, 412	ECBT1H101KB5	50V 100P
C413, 414	ECEA1CKA100B	16V 10U
C415, 416	ECBT1E1032F	25V 0.01U
C417, 418	ECBT1H101KB5	50V 100P
C419-422	ECBT1H331KB5	50V 330P
C423-426	ECBT1H101KB5	50V 100P

Ref. No.	Part No.	Values & Remarks
C427, 428	ECBT1H221KB5	50V 220P
C431, 432	ECEA1CKA100B	16V 10U
C440	ECBT1E1032F	25V 0.01U
C451, 452	ECEA1VKA4R7B	35V 4.7U
C453, 454	ECBT1H100JC5	50V 10P
C455, 456	ECBT1H102KB5	50V 1000P
C457, 458	ECEA1AKA330B	10V 33U
C459, 460	ECFR1E223KR	25V 0.022U
C461, 462	ECFR1E682KR	25V 6800P
C463, 464	ECEA1VKA4R7B	35V 4.7U
C465, 466	ECBT1E1032F	25V 0.01U
C469, 470	ECBT1H181KB5	50V 180P
C501, 502	ECFR1E333KR	25V 0.033U
C503, 504	ECEA0JKA101B	6.3V 100U
C505, 506	ECFR1E104KR	25V 0.1U
C511, 512	ECEA1HKA3R3B	50V 3.3U
C513, 514	ECBT1H150J5	50V 15P
C515, 516	ECBT1H221KB5	50V 220P
C517, 518	ECBT1H330J5	50V 33P
C519-522	ECEA1VKA4R7B	35V 4.7U
C523, 524	ECFR1E123KR	25V 0.012U
C525, 526	ECQV1H683JM3	50V 0.068U
C527, 528	ECFR1E562KR	25V 5600P
C529, 530	ECQB1H273JF3	50V 0.027U
C531, 532	ECBT1E1032F	25V 0.01U
C533, 534	ECEA1CKA100B	16V 10U
C536	ECEA1HKN010B	50V 1U
C543, 544	ECBT1C332KR5	16V 3300P
C551, 552	ECEA1HKA3R3B	50V 3.3U
C553, 554	ECBT1H101KB5	50V 100P
C555	ECBT1H221KB5	50V 220P
C556	ECBT1H101KB5	50V 100P
C557, 558	ECBT1E1032F	25V 0.01U
C559, 560	ECEA1CKA100B	16V 10U
C561, 562	ECEA1HKA3R3B	50V 3.3U
C563	ECEA1HKN010B	50V 1U
C581, 582	ECEA0JKA101B	6.3V 100U G
C601, 602	ECEA1HKN3R3B	50V 3.3U
C603, 604	ECBA1H681KB5	50V 680P
C605, 606	RCE1JU220BV	63V 22U
C607, 608	ECCR1H100K5	50V 10P
C609, 610	ECBT1H221KB5	50V 220P
C611, 612	ECQV1H473JM3	50V 0.047U
C613, 614	ECBA1H681KB5	50V 680P
C615	ECA1HM470B	50V 47U
C616	ECEA2AU100	100V 10U
C617	RCE1JU220BV	63V 22U
C618	ECEA2AN2R2SB	100V 2.2U
C621, 622	ECEA2AU100	100V 10U
C631-634	ECKT1H223ZF	50V 0.022U
C635, 636	ECKR1H103ZF5	50V 0.01U
C637	ECKT1H223ZF	50V 0.022U

Ref. No.	Part No.	Values & Remarks
C651, 652	ECEA1HKN3R3B	50V 3.3U
C653, 654	ECBA1H681KB5	50V 680P
C655, 656	RCE1JU220BV	63V 22U
C657, 658	ECCR1H100K5	50V 10P
C659, 660	ECBT1H221KB5	50V 220P
C661, 662	ECQV1H473JM3	50V 0.047U
C663, 664	ECBA1H681KB5	50V 680P
C665	ECA1HM470B	50V 47U
C666	ECEA2AU100	100V 10U
C667	RCE1JU220BV	63V 22U
C668	ECEA2AN2R2SB	100V 2.2U
C671, 672	ECEA2AU100	100V 10U
C681, 682	ECEA1HN100SB	50V 10U
C685	ECBT1E1032F	25V 0.01U
C691	ECKT1H101KB	50V 100P
C701	ECBT1E1032F	25V 0.01U
C702	ECQE2104KF3	250V 0.1U
C703, 704	ECOS1JP682CZ	63V 6800U E, EB, EG ⚠
C703, 704	ECES75V752UX	75V 7500U G, GN ⚠
C705, 706	ECA1VM472B	35V 4700U ⚠
C707	RCE1VM101BV	35V 100U
C708	ECKR1H1032F5	50V 0.01U
C709	ECEA1CKA330B	16V 33U
C710	ECBT1E1032F	25V 0.01U
C711	ECKR1H1032F5	50V 0.01U
C712	ECEA1HKA100B	50V 10U
C713	ECKR1H1032F5	50V 0.01U
C714	ECEA1CKA470B	16V 47U
C721, 722	ECQE2104KF3	250V 0.1U
C731, 732	ECKR1H1032F5	50V 0.01U
C751	ECKWNS102MBM	400V 1000P ⚠
C752	ECKR1H1032F5	50V 0.01U
C753	ECA1EM102B	25V 1000U ⚠
C754	ECBT1E1032F	25V 0.01U
C755	ECEA1CKA470B	16V 47U
C756	ECBT1E1032F	25V 0.01U
C758	ECEA1AKA101B	10V 100U
C771	ECEA1HKA2R2B	50V 2.2U
C772	ECEA1CKA100B	16V 10U
C773	ECBT1E2232F	25V 0.022U
C774	RCE0JKA221BV	6.3V 220U
C891	ECFR1E392KR	25V 3900P
C901	ECA0JM102B	6.3V 1000U
C902, 903	ECBT1E1032F	25V 0.01U
C904	ECA0JM471B	6.3V 470U
C906	ECEA0JKA101B	6.3V 100U
C908	ECBT1E1032F	25V 0.01U
C909-912	ECEA1HKA220B	50V 22U
C913, 914	ECEA1VKA100B	35V 10U
C916	ECEA1HKA010B	50V 1U
C919	ECBT1E1032F	25V 0.01U
C920	ECEA1HKA010B	50V 1U

Ref. No.	Part No.	Values & Remarks
C921-928	ECBT1H331KB5	50V 330P
C929, 930	ECBT1H101KB5	50V 100P
C935	ECEA0JKA101B	6.3V 100U
C936	ECBT1E1032F	25V 0.01U
C937-942	ECBT1H101KB5	50V 100P
C944	ECBT1H101KB5	50V 100P
C1001, 1002	ECEA1HKA010B	50V 1U
C1003, 1004	ECEA1HKA3R3B	50V 3.3U
C1005	ECEA1HKA010B	50V 1U
C1007	ECFR1E223KR	25V 0.022U
C1008	ECFR1E473KR	25V 0.047U
C1009	RCE0JKA221BV	6.3V 220U
C1010-1013	ECEA1CKA100B	16V 10U
C1014	RCE0JKA221BV	6.3V 220U
C1015, 1016	ECQV1H104JM3	50V 0.1U
C1017	ECEA1HKAR47B	50V 0.47U
C1018	ECEA1VKA4R7B	35V 4.7U
C1019	ECEA1HKAR47B	50V 0.47U
C1020	ECEA1VKA4R7B	35V 4.7U
C1021	ECEA1HKAR15B	50V 0.15U
C1022	ECEA1HKA3R3B	50V 3.3U
C1023, 1024	ECQV1H154JM3	50V 0.15U
C1025	ECEA1HKA3R3B	50V 3.3U
C1026	ECEA1HKAR15B	50V 0.15U
C1027	ECEA1VKA4R7B	35V 4.7U
C1028	ECEA1HKAR47B	50V 0.47U
C1029	ECEA1VKA4R7B	35V 4.7U
C1030	ECEA1HKAR47B	50V 0.47U
C1031, 1032	ECQV1H104JM3	50V 0.1U
C1033	ECEA1CKA470B	16V 47U
C1034	ECQV1H474JM3	50V 0.47U
C1035	ECBA1H681KB5	50V 680P
C1036-1038	ECBT1H101KB5	50V 100P
C1039	ECEA1CKA101B	16V 100U
C1040	ECEA1CKA100B	16V 10U
C1041	ECBT1E1032F	25V 0.01U
C1051	ECEA1HKA2R2B	50V 2.2U
C1052	ECEA1HKA010B	50V 1U
C1053	ECEA1HKA3R3B	50V 3.3U
C1054	RCE0JKA221BV	6.3V 220U
C1055	ECEA1HKA010B	50V 1U
C1056	ECFR1E333KR	25V 0.033U
C1057	ECFR1E152KR	25V 1500P
C1058	ECFR1E333KR	25V 0.033U
C1059	ECEA1CKA101B	16V 100U
C1060	ECBT1E2232F	25V 0.022U
C1062	ECBT1E2232F	25V 0.022U
C1063	ECEA1CKA101B	16V 100U
C1065	ECBA1H681KB5	50V 680P
C1067, 1068	ECBT1C152KR5	16V 1500P
C1071, 1072	ECEA1HKA3R3B	50V 3.3U
C1073, 1074	ECEA1CKA100B	16V 10U

Ref. No.	Part No.	Values & Remarks

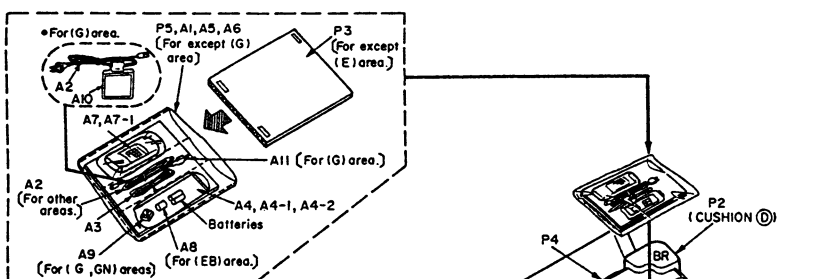
■ REPLACEMENT PARTS LIST

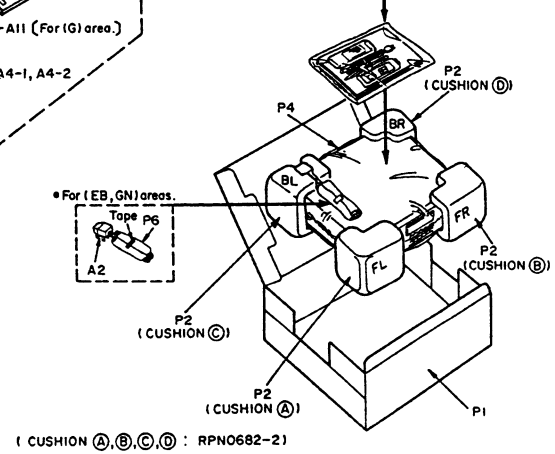
Notes: *Important safety notice:
Components identified by △ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.
*The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
Parts without these indications can be used for all areas.
*Remote Control Ass'y: Supply period for three years from termination of production.
*The "(SF)" mark denotes the standard part.

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIAL	
P1	RPG2086	PACKING CASE	(EB)
P1	RPG2085	PACKING CASE	(E, EG, G, GN)
P2	RPN0682-2	CUSHION	
P3	RPQ0164	PAD (ACCESSORIES)	(EB, EG, G, GN)
P4	SPP730	PROTECTION BAG (UNIT)	
P5	RPF0134	PROTECTION BAG (F. B.)	
P6	RPH0032	PROTECTION SHEET	(EB, GN)
		ACCESSORIES	
A1	RFKSAGX470E	INSTRUCTION MANUAL ASS'Y	(E)
A1	RFKSAGX470EB	INSTRUCTION MANUAL ASS'Y	(EB)
A1	RFKSAGX470EG	INSTRUCTION MANUAL ASS'Y	(EG)
A1	RFKSAGX670G	INSTRUCTION MANUAL ASS'Y	(G)
A1	RFKSAGX670GN	INSTRUCTION MANUAL ASS'Y	(GN)

Ref. No.	Part No.	Part Name & Description	Remarks
A2	RJA0019-2K	AC POWER SUPPLY CORD	(E, EG, G) ⚠ (SF)
A2	VJA0733	AC POWER SUPPLY CORD	(EB) ⚠ (SF)
A2	RJA0036-K	AC POWER SUPPLY CORD	(GN) ⚠ (SF)
A3	RSA0007	FM INDOOR ANTENNA	
A4	RSA0010	AM LOOP ANTENNA SET	
A4-1	RMN0244	AM ANTENNA HOLDER	
A4-2	XTN3+10AFZ	SCREW	
A5	RQCB0169	SERVICENTER LIST	
A6	RQA0013	WARRANTY CARD	(E, EB, EG)
A6	RQX7433ZA	WARRANTY CARD	(GN)
A7	RAK-SA114XH	REMOTE CONTROL TRANSMITTER	(E, EB, EG)
A7	RAK-SA704XH	REMOTE CONTROL TRANSMITTER	(G, GN)
A7-1	RKKD057-K	BATT. COVER (R/C TRANSMITTER)	(E, EB, EG)
A7-1	RKKD020-K	BATT. COVER (R/C TRANSMITTER)	(G, GN)
A8	SJP9009	ATTACHMENT PLUG	(EB) ⚠
A9	RFE0014	ANTENNA PLUG	(G, GN)
A10	RQLA0134	VOLTAGE CAUTION LABEL	(G)
A11	SJP5213-1	POWER PLUG ADAPTOR	(G) ⚠

■ PACKAGING





(CUSHION Ⓐ, Ⓑ, Ⓒ, Ⓓ : RPN0682-2)

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